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ABSTRACT

This literature review considers the impact of desegregation on community response, racial relations, academic achievement and resegregation. Chapter one examines the effectiveness of desegregation plans in reducing racial isolation and white flight, and in promoting a positive community response. Desegregation school practices and effects on intergroup relations among students are discussed in chapter two. A discussion of the effects of desegregation on minority group achievement in reading and language arts, the racial composition of desegregated schools, and implications for desegregation policy are presented in chapter three. The final chapter discusses resegregation as a result of assignment to academic programs, and the impact of discipline practices on resegregation. The relationship of desegregation to assignment procedures such as ability grouping and tracking, and the effect of desegregation on special education, bilingual education and compensatory education programs are also examined. Within each chapter, reference notes and a bibliography are appended. (JCD)

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ASSESSMENT OF CURRENT KNOWLEDGE ABOUT THE EFFECTIVENESS OF SCHOOL DESEGREGATION STRATEGIES

VOLUME V

A REVIEW OF THE EMPIRICAL RESEARCH ON DESEGREGATION: COMMUNITY RESPONSE, RACE RELATIONS, ACADEMIC ACHIEVEMENT AND RESEGREGATION

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Center for Education and Human Development Policy

Institute for Public Policy Studies

Vanderbilt University

April 1981

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Preface

This volume is one of nine resulting from the Assessment of Effective Desegregation Strategies Project (hereafter referred to as the Project). The Project was financed with funds provided by the Office for Civil Rights (OCR) of the U.S. Department of Education and administered by the National Institute of Education (NIE).*

The primary purpose of the Project has been to identify what is known about strategies that are effective in desegregating school systems. A secondary objective of the Project is to facilitate further research on this topic. The Project will be successful if policy makers and practitioners use its findings, and the subsequent knowledge from research to which the project contributes, to more effectively racially desegregate the nation's schools.

There are several potential goals of desegregation and these may be the terms in which effectiveness is measured. This Project defined an effective strategy in one of four general ways:

1. The acceptance and support of desegregation by parents and the community.
2. The reduction of racial isolation and the avoidance of segregation among public schools (white flight and nonentry) and within schools (unnecessary ability grouping, push-outs, etc.).
3. The development of better race relations among students.
4. The improvement, or at least the continuance, of academic achievement.

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* This report was prepared under Contract No. NIE-R-79-0034.

The Project involved several different but interrelated activities:

1. A comprehensive review of the empirical research.
2. A review of the qualitative literature on school desegregation, including studies surveying the opinions of practitioners and policy makers (see Volume VI).
3. An analysis of ten key court decisions (see Volume VII).
4. Interviews with local and national experts on school desegregation (see Volume VI).
5. A synthesis of the information gathered in activities 1-4 (see Volume I).
6. A review of actions by state governments and interviews with state officials (see Volume VIII).
7. An agenda for future research to determine the effectiveness of school desegregation strategies (see Volume II).
8. The design of a multicommunity study to determine the factors that account for the effectiveness of school desegregation (see Volume III).
9. A guide to resources that those charged with implementing desegregation might find helpful (see Volume IV).
10. A comprehensive bibliography of books, articles, papers, documents and reports that deal with desegregation strategies related to the four general goals outlined above (see Volume IX).

These several activities were conducted by a team of researchers from several universities and organizations. The Project, which was managed by Willis D. Hawley with the assistance of William Trent and Marilyn Zlotnik, was initially based at Duke University's Institute of Policy Sciences and Public Affairs. Midway during its 19 month life, the Project was moved to Vanderbilt University's Institute for Public Policy Studies. The members of the Project team were:*

Carol Andersen	Education Commission of the States
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* Affiliations are for the period during which these persons participated in the study.

The Advisory Board

This project has benefitted from the advice of a distinguished panel of scholars and practitioners who made suggestions and comments on every thing from the project design to the final report. The members of the Board are:

Mary Berry, Professor of History, Howard University and Vice Chairperson, U.S. Commission on Civil Rights

Fred Burke, Commissioner of Education, State of New Jersey

Norman Chachkin, Lawyers' Committee for Civil Rights Under Law

Francis Keppel, Professor of Education, Harvard University and Chairman, National Project and Task Force on Desegregation Strategies

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Peter Roos, Director of Education Litigation, Mexican American Legal Defense Fund

Franklin Wilson, Professor of Sociology, University of Wisconsin, Madison

The conclusions reached in the several volumes are those of the named authors. Neither the National Institute of Education nor the Office for Civil Rights supports the findings of this Project.

VOLUME V

A REVIEW OF THE EMPIRICAL RESEARCH ON DESEGREGATION: COMMUNITY RESPONSE, RACE RELATIONS, ACADEMIC ACHIEVEMENT AND RESEGREGATION

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CHAPTER I

THE EFFECTIVENESS OF DESEGREGATION PLANS IN REDUCING RACIAL ISOLATION, WHITE FLIGHT, AND ACHIEVING A POSITIVE COMMUNITY RESPONSE*

Christine H. Rossell

Introduction

What Kinds of Desegregation Plans Reduce Racial Isolation?

Some school districts desegregate under a board order, some under a court order, some allow parental choice, while others do not. Few studies have even attempted an analytical distinction between these types of plans and even fewer have attempted to determine which result in the greatest degree of school desegregation.

Table 1 shows a very simple 2 x 2 table in which the Source of the order to desegregate is at the top and divided into two cells "board-ordered" (i.e. internal) and Court- or HEW-ordered (i.e. external). The degree of parental choice is on the left and is divided into two cells: no choice (mandatory reassignment) and choice (voluntary reassignment). Many long term observers of school desegregation have confused these different types of plans. There are school districts in every cell in this table. For example, there are board-ordered desegregation plans which allow parents no choice as to whether they will participate in the desegregation plan as long as their child is to remain in the public school system (e.g. Berkeley, Evanston and Seattle). By contrast, there are court-ordered desegregation plans which have allowed parents a choice as to whether their child is to be reassigned to a desegregated school or remain in their neighborhood school (e.g. San Diego, Houston and Milwaukee), although such plans rarely result in more than a ten point reduction in segregation.

Thus when Bullock (1976) notes that coercion is necessary in order to achieve effective desegregation in southern school districts, he is talking about some type of external order, whether HEW or court. Because he makes no distinction between mandatory and voluntary reassignment (cells 2 and 4 in Table 1), his findings are therefore slightly ambiguous. He also finds positive incentives in the form of the promise of Emergency School Assistance Act funds to have no effect on the extent of desegregation in school districts in Florida, Georgia, Louisiana, and Virginia.

Table 1

Types of Desegregation Plans

	Source of Order	
Parental Choice	Board-Ordered (Internal)	Court- or HEW-Ordered (External)
No (Mandatory Reassignment)	1	2
Yes (Voluntary Reassignment)	3	4

Bullock and Rodgers (1976) find greater reductions in racial isolation in Georgia school districts when the source of the order to desegregate is from the Department of Health, Education, and Welfare (HEW) than when it is court-ordered, again making no distinction between voluntary and mandatory reassignment. Rossell's (1978a) study of 113 school districts in the U.S. suggests that in both the North and South the vast majority of school desegregation plans are court-ordered rather than HEW-ordered. As Table 2 indicates, court-ordered plans on average produce greater reductions in racial isolation than HEW plans

Table 2

Variation in School Desegregation

	% of Sample (N=113)	Year of Implementation Median Year	% Blacks Reassigned			% Whites Reassigned			Reduction in Segregation[a]			Fall 1975 Segregation Level[a]		
			$\bar{X}$	Min.	Max.	$\bar{X}$	Min.	Max.	$\bar{X}$	Min.	Max.	$\bar{X}$	Min.	Max.
Northern Court-Ordered	15.9	1973	25	2	83	6	0	24	-24.1	-1.9	-53.0	34.1	0.9	71.5
Northern HEW-Ordered	1.8	1972	22	2	42	3	2	4	-23.9	-6.2	-41.6	42.2	17.0	67.4
Southern Court-Ordered	16.8	1970	18	4	47	3	0	10	-27.5	-6.3	-53.0	47.7	12.5	79.8
Southern HEW-Ordered	2.7	1970	15	4	21	2	0.3	4	-28.5	-4.6	-45.0	57.8	39.8	88.5
Northern Board-Ordered City-Wide Plans	8.8	1970	19	9	42	2	0	16	-13.7	-4.4	-32.9	29.5	2.3	52.1
Partial or Token Board-Ordered Plans[b]	28.3	1969	3	0.1	10	0	0	2	- 6.5	3.5	-21.9	58.9	21.3	91.4
Northern Control Group	24.8		0	0	0	0	0	0	- 0.7	3.5	- 5.5	59.6	36.0	91.1

[a] Measured by index of dissimilarity.
[b] All but one of these school districts (New Orleans) is Northern.

Source: C. H. Rossell, School desegregation and community social change, Law and Contemporary Problems, 1978, 42(3), 156.

or board-ordered plans.[1] This is because on average they are more likely to require mandatory reassignment of both black and white students. The relative disadvantage of HEW in reducing racial isolation compared to the courts is undoubtedly due to the fact that HEW is limited by various Congressional amendments that forbid it to "racially balance" schools. In addition, as Bullock (1976) implies, withholding funds is not as great a threat to school boards as going to jail for contempt of court.

School boards, on their own initiative, accomplish relatively little desegregation because they tend to be political compromisers. They balance the demands of the black community and the threat of a future court order with the demands of the much more powerful white community and thus produce a token plan. In Rossell's (1978a) 113 school district study, only one school district (Berkeley) mandatorily reassigned white students to minority schools during the time period studied (1964-1975). Since that time, only one other school board in that sample (Seattle, Washington) has done so.[2]

One major issue of concern to desegregation analysts has been whether voluntary desegregation plans, (whether board-ordered, or HEW- or court-ordered) can be made attractive enough to effectively reduce racial isolation. Rossell (1979) finds that voluntary desegregation plans, even those including magnet schools, cannot reduce racial isolation more than a few percentage points in school districts over 30 percent minority. Rossell (1979) finds that magnet schools can, however, produce significant desegregation in school districts less than 30 percent minority simply because such school districts need only a small proportion of white volunteers in order to desegregate their minority population. Larson (1980) finds, by contrast, that voluntary magnet schools did not significantly reduce segregation in Montgomery County (Md.) even though the school district was less than 30 percent minority.

In the end, although mandatory desegregation plans produce more white flight, the net benefit, defined as the proportion white in the average minority child's school,[3] is greater than in a voluntary plan. Armor (1980) argues on the basis of a cohort retention rate analysis of white births in several cities that over a period of ten years a voluntary plan, because it produces less white flight, not only in the implementation year but in post-implementation years, will produce the same or a greater proportion white in the average minority child's school. At this point in time, however, there are not sufficient data to test this argument.

Community Response to Mandatory Desegregation

Rossell (1978c) has isolated four stages in the process of achieving mandatory school desegregation and as a consequence, community social change. This analysis depends on the assumption that school desegregation is not accepted by 90% of the white population if it is defined as the busing of school children for the purpose of "racial balance," "school desegregation," or "school integration" (Harris Poll, 1976). Thus, the four stages shown below begin with group protest demonstrations.

Pre and post implementation.

1. Group protest demonstrations, and individual protest voting
2. White flight

Post implementation.

3. Pro-integration attitudinal change, reduction in prejudice
4. Election of blacks, residential integration

In policy analytical terms, the attempt to rid the community of school desegregation by protest demonstrations and voting, and the attempt to rid the individual of desegregation by exiting, results in negative consequences for community social change which are the indirect costs of the policy. The degree to which school desegregation influences people to have less prejudiced attitudes and to act in a less prejudiced manner in all aspects of community life are the desired benefits of school desegregation.[4]

This review summarizes the research in each of the above areas with special attention paid to desegregation plan characteristics which can effectively increase interracial contact, minimize resegregation, reduce protest and racial prejudice. Unfortunately, most of the research is not very helpful in these areas.

The Effect of School Desegregation on Group Protest Demonstrations and Protest Voting

The research findings on the characteristics of protest demonstrators and the community social environment necessary for protest, the characteristics of protest voting, and the effect of protest demonstrations and voting on school desegregation outcomes are described in this section. Although school desegregation provokes some degree of controversy in virtually all communities, significant protest occurs only in communities which have an environment conducive to it.

Characteristics of Protesters

While there have been numerous studies, both national and local, of the characteristics of those opposed to school desegregation, little systematic research has been conducted to determine the characteristics of those who actually participate in protest activity. In analyzing protest, we are confronted with a paradox. Protest against school desegregation is a form of political participation. On the one hand, the research findings suggest that those most opposed to school desegregation are lower-class, uneducated, racist, and Southern. On the other hand, the political participation research indicates that those of higher social status tend to participate more than others in political activity.

The findings of four studies that analyze systematically the individual characteristics of protesters reflect this paradox. A study of seven Florida county school districts, by Giles, Gatlin, and Cataldo (1976b); Cataldo, Giles, and Gatlin (1978:37) found that among those who complied with the desegregation plan, the proportion of protesters increased with higher income, educational level, and occupational prestige, and that there was little difference between Southerners and Northerners. No other study has found this to be the case. Hayes' (1977) study of Indianapolis' desegregation plan, for example, found no direct or indirect relationship between protest and such individual characteristics as sex, income, and education.

Taylor and Stinchcombe (1977) found Catholics, less educated individuals, and younger people more likely to be mobilized for boycotts. Data collected in a 1976 and 1977 survey of Lousiville-Jefferson County by McConahay and Hawley (1978) indicate that those in the upper working class (with high school degrees) are more likely to protest than either those with the least education or those with the most. In addition to this curvilinear relationship between class and participation in protest activity, their data suggest that while, in general, the working class participates in protest activity more than the middle class, protest leaders tend to come from the middle class. Moreover, the middle class participates at a much higher rate than the popular description of protestors would have led us to expect.

All of the above studies found participation in protest activities related to feelings of anomie and authoritarianism as well as to racial prejudice and opposition to school desegregation. Giles, Gatlin and Cataldo (1976a) also found participation in protest by those of relatively high social status to be related to class prejudice.

Begley and Alker (1978) analyzing a random sample of 298 South Boston residents in June 1976 at the end of the second year of school desegregation found separate types of protest (individual acts of protest, organized group protest, and black-related violence) to be related differentially to separate social psychological perspectives. Those who felt economically deprived relative to white-collar workers were most likely to participate in organized anti-busing protests. Those who had a high sense of efficacy and who distrusted the federal government engaged in individual acts of protest. Those who felt economically deprived relative to blacks became involved with black-related violence. Begley and Alker's findings suggest the other studies discussed above might have yielded somewhat different findings if they had been more careful in distinguishing between different types of protest.

Protest Demonstrations and the Community Social Environment

Virtually all of the studies are in agreement that protest, because it is a deviant form of behavior, requires a supportive social environment before it will manifest itself. Like others who engage in deviant acts, the potential protester must rationalize and redefine the situation before the act of protest is perceived as legitimate.

Kirby, Harris and Crain's (1973) study of ninety-one Northern cities from 1960-68 found white opposition as expressed through protest, picketing, attendance at school board meetings and other kinds of demonstrations to be greatest in cities where blacks were inactive, where the mayor was conservative, and where opposition to desegregation came from within the school board itself. Two later studies clarify this relationship. The Hayes (1977) study of Indianapolis and the Taylor and Stinchcombe (1977) analysis of Boston found the perception of social support, especially neighborhood support, to be strongly related to protest activity. Moreover, in Boston, the social network within the Catholic Church played a significant role in strengthening people's opinions and propensity to protest.

The characteristics of the particular desegregation plan may also play a role in creating an environment supportive of protest. A study of ten cities undertaken by Rossell (1978b) in which newspaper coverage of schools was analyzed for the year preceding the implementation of court-ordered desegregation, found that at the aggregate level, protest is positively related to the extent of white student reassignments to formerly black schools. The greater the proportion of white students reassigned, the greater the extent of protest activity. It is likely that with extensive, two-way reassignment plans, entire white neighborhoods would be affected and thus united in their opposition to having their children bused out.

An important finding of Rossell (1978b) is that during the year preceding the implementation of court-ordered desegregation, traditional methods of leadership support by the political, business, and civic elite--for example, public pronouncements for or against school desegregation--had little effect on protest. Indeed, protest seems to have caused leaders to make negative pronouncements on school desegregation rather than the other way around. On the one hand, this appears to support Hayes (1977) and Taylor and Stinchcombe (1977). Public statements by city leaders are likely to be ineffective because such techniques rarely influence what is important: the neighborhood environment of social support. On the other hand, Rossell's finding may be attributable to the fact that there were few leadership statements one way or the other. Most leaders avoided the issue, and the only positive statements about social desegregation made by city leaders were in response to negative statements by other leaders.

The fact that there was a tendency for leadership statements in support of desegregation to be negatively related to the extent of the desegregation plan--the less the extent of white reassignments, the more positive the statements by leaders (most of whom were white)--may be the source of much confusion in the literature over the role of leaders. Studies that find leadership support of school desegregation to facilitate peaceful implementation may be confusing the effect of leadership support with the effect of a token plan.

Still, in the absence of any strong city leadership support of school desegregation plans that require extensive reassignments, particularly of whites, it is difficult to say that such support would have no effect on minimizing protest and violence. All that can be said is that there is no conclusive evidence either way. One can hypothesize, however, that in the face of neighborhood-based opposition to desegregation, traditional centralized leadership is likely to be ineffective. It would follow then that pro-desegregation elites might be able to reduce protest if they were able to influence neighborhood opinion leaders.

Protest Voting

Only two studies have specifically examined the impact of the process of implementing school desegregation on local elections, and both generally substantiate the principles of alienation theory, although with a new twist. Both comparative studies--Lezotte's (1976) precinct analysis of Lansing, Michigan, and Rossell's (1975a) analysis of sixty-nine northern school districts--are quasi-experimental. They indicate that in school districts that desegregate under court order, the voter turnout for school elections decreases after the implementation of desegregation and that there is no change in dissent voting. The decrease in turnout presumably is a function of the fact that when a court is in charge, individuals feel they have no control over school policy. In short, they are alienated.

In school districts which have desegregated under a board order (i.e. no court order), the greater the desegregation, the more dissent voting in both school board elections and tax referenda, and the higher the voter turnout. Presumably this relationship is due to the fact that the more extensive the desegregation plan, the more controversial and publicized it becomes. This attracts dissenting voters to the polls to register a complaint. In addition, Rossell (1975a) finds dissent voting to be greatest in school districts where the median educational level is low. Undoubtedly, this is because in such districts, individual voters are likely to be of low educational level; thus, more likely to oppose school desegregation and to be alienated on a number of such "liberal" issues. It is also possible that in such districts individual voters of high educational level may be opposed to desegregation either because of their own class prejudice or because they feel it is a "luxury" their low status, probably poor, district cannot afford.

While dissent voting is temporary (occurring immediately after the school desegregation decision is made and only rarely continuing past the first year in which the plan is implemented), Rossell (1975a) finds that increased school board election voter turnout is lasting in school districts where the median educational level is high, and there has been extensive, but non-court-ordered desegregation. Thus, in these communities the long term impact of non-court-ordered school desegregation is to stimulate political participation.

The Effect of Protest on Desegregation Plans

Because protest demonstrations and protest voting are positively correlated with the extent of the desegregation plan, it follows that protest is generally not effective in preventing desegregation. Kirby, Harris and Crain (1973) and Rossell (1978b) find that demonstrations begin after the decision to desegregate has been made--sometime during the middle of the school year before the plan is implemented--and peak during the opening week of school. They seldom persist past the year in which the plan is implemented. Rossell, (1975a) finds protest voting follows a similar trend although it will sometimes continue after the implementation year.

Demonstrations. While there is no evidence that protest can prevent the implementation of a school desegregation plan, demonstrations may have negative effects on desegregation outcomes in two ways. First, there is some evidence that protest demonstrations may accelerate white flight. Rossell (1978b) has shown that the degree of white flight in the year of desegregation implementation is positively related to the level of protest in the first six months of the pre-implementation school year, regardless of the extent of the desegregation plan. Thus, protest may reduce further the white enrollment needed to promote interracial contact.

Second, protest may negatively effect student behavior in the schools and ultimately educational outcomes. In Pontiac, Michigan, the U.S. Commission on Civil Rights (1973) found the drop in the number of student incidents to coincide with the decline in adult protest against the desegregation plan. Similarly, Richard, Knox, and Oliphant (1975) charted the daily student attendance in the Boston school system during the first year of the implementation of the school desegregation plan (1974-1975), and found that sharp drops in school attendance followed adult street disturbances. Moreover, as indicated in Weinberg's 1975 review of school desegregation research, community racial conflict and student disturbances may reduce the likelihood of minority achievement gains in desegregated schools.

Protest Voting. Because protest voting, like demonstrations, is positively related to the extent of desegregation, it follows that it is not very effective in preventing implementation. The defeat of school tax referenda has not been found (as one would expect) to influence a court order. Furthermore, there is no evidence of any school board having already made the controversial and momentous decision to desegregate some or all of the school system, rescinding such a decision simply because the voters failed to approve a tax increase. Much of the money used for desegregation programs comes from the federal government anyway (with the exception of that used for additional transportation).

Defeat of school board members in regular or recall elections clearly has a greater potential for effecting the characteristics of a desegregation plan than defeat of tax referenda. Yet, Rossell's (1975a) study of 69 northern school districts found that in only one, Rochester, New York, did the defeat of incumbent school board members (in a recall election) actually result in a desegregation plan being permanently rescinded. The defeat of the incumbent school board members in the Denver, Lansing and Detroit school district elections resulted in each plan's temporary rescission, but each was later ordered into effect by a federal court. Ironically, the district court in the Denver case (Keyes v. School District No. 1; 303, F. Supp. 279, 285 [D. Colo. 1969]) found that the rescission of the previous board's plan by the newly elected antibusing board was evidence of intentional segregation.

There are several plausible explanations for why dissent voting does not seem to prevent the implementation of a desegregation plan. First, like demonstrations, dissent voting typically occurs after the decision to desegregate. Since school board elections usually are held only on predetermined dates, board election dissent voting often occurs after the implementation of the plan. This is also true of tax referenda. It is much more difficult to rescind a plan that has already been adopted. Moreover, as suggested above, it is unlikely any court or school board would rescind a decision made on legal or educational grounds because the voters fail to approve a tax increase. Second, the decision to desegregate is obviously made in response to the presence of segregated schools. Therefore, if the board plan is rescinded, it is quite likely that a court will find the same intentional segregation. If the dissent voting is in response to a school board's failure to appeal a court decision (as in the Pasadena recall election of 1970), it is unlikely that an appeal taken by a new anti-busing school board will be successful. Finally, like demonstrations, protest voting is temporary. Therefore, its effect on the district's tax revenues will also be temporary and its effect on the composition of the school board is significant only if there is a successful recall election where all the pro-busing members can be defeated at one time.

Summary of Research on Protest

The research on protest indicates that the following propositions characterize this stage of social change:

1. Protest usually begins after the decision to desegregate the schools has been made and rarely continues past the implementation year.
2. The greater the proportion of white students reassigned to formerly black schools, the greater the degree of protest.
3. Participation in protest demonstrations has a curvilinear relationship to socioeconomic status. That is, protesters are more likely to come from the upper working class than the lower class or middle class.
4. Protest leaders tend to be middle class.
5. Different types of protest are related to different kinds of attitudes. Organized protest participation is most likely to be related to feelings of economic deprivation relative to white workers; individual acts of protest related to a high sense

of efficacy and distrust in the federal government, while anti-black violence is related to feelings of economic deprivation relative to black workers.

6. Protest demonstrations are dependent on a supportive community social environment, particularly at the neighborhood level. Moreover, there is no evidence that traditional methods of leadership influence by the business, political and civic elite (e.g., public pronouncements, use of the mass media) would reduce the level of protest.
7. Court-ordered desegregation results in a decrease in voter turnout for board elections, but no change in dissent voting.
8. Increased board election turnout appears to be permanent in high educational level school districts that have implemented extensive desegregation, but not under court order.

According to the research, protest can have the following effects on school desegregation and its outcomes:

1. Neither protest voting nor protest demonstrations are effective in preventing school desegregation once the decision has been made.
2. Adult protest demonstrations are related to student disturbances within the schools and declines in student attendance.
3. Protest demonstrations increase the amount of white flight from public schools.

The Impact of School Desegregation on White Flight

The ineffectiveness of protest demonstrations and protest voting in preventing desegregation, once the decision has been made, will compel some individuals to attempt to avoid school desegregation even though the community is still forced to undergo it. Nevertheless, one cannot predict the extent of this avoidance from the extent of community opposition to school desegregation or to busing. "White flight" depends not only on attitudes, but also on the availability of options for avoiding desegregation and the costs of avoidance in comparison to the perceived costs of compliance as Giles and Gatlin (1980) have demonstrated. These costs will vary greatly according to the characteristics of the plan and among different segments of the population.

This section of the research review describes (1) the impact of school desegregation on residential out-migration and in-migration, (2) the impact of desegregation on white public school enrollment in the year of implementation of the plan, (3) the causes of variations in this effect, (4) the long term impact of desegregation on white enrollment, and (5) the ability of desegregation to achieve the instrumental goal of interracial contact in both the long and short run.

The best way of determining the effect of desegregation on white flight is to conduct a survey of predesegregation attitudes toward racial integration issues, behavioral intentions with regard to moving or withdrawing children from the public schools (in the absence of any knowledge of future desegregation), and postdesegregation attitudes, behavioral intentions, and actual behavior. The only such study that exists is a case study of Boston[5] analyzed in Estabrook (1980) which, although well designed, is not fully completed and which, because of the peculiarities of Boston and the original goals of the study, may be limited in its generalizability. The costs of a comparative study of several urban school districts, using such a methodology, would be astronomical. Thus, the comparative studies that are available are aggregate analyses, and the surveys, with the exception of Estabrook (1980), are post-implementation case studies.[6]

Residential Out-Migration and In-Migration in Response to School Desegregation

White flight from the public schools may take two forms: the transfer of students to private schools within the district and the movement of families out of the school district. Intuitively, the former would seem less damaging to a community than the latter, in part because the possibility of returning to the public schools is much greater, but also because these individuals will remain a part of whatever community social change occurs. A counter argument can be made, however, that transfer to private schools within the school district is more damaging than movement to the suburbs because at least with the latter there is the possibility that the families who move out will be replaced by families who may put their children in the public schools. In the former situation, no such family replacement can occur.

Unfortunately, most of the research makes no distinction between the two forms of white flight since the dependent variable is usually aggregate change in white public school enrollment. There are, however, five case studies of four different school districts that are able to make this distinction because of their use of survey sampling techniques or analysis of the local housing market. These studies indicate that in most cases, there is little residential relocation in response to school desegregation.[7] Three of the studies are of countywide plans, so this finding should not be surprising. According to Lord (1975) only .2 percent of the Charlotte-Mecklenburg county school population moved to neighboring Union county. Two studies of Louisville (McConahay and Hawley, 1978, and Husk, 1980, on the one hand and Cunningham, 1980 on the other) found little residential relocation, but their analyses were only of the post-implementation years. Since white flight is greatest in the implementation year, this may underestimate the amount of residential relocation that occurred, although it reveals useful information about the long term impact.

The most important of the case studies is Estabrook's (1980) survey analysis because it is the only one using a quasi-experimental panel survey design. Her analysis (1980:202) indicates that of those white residents of the Boston neighborhoods studied who withdrew their children from the public schools after desegregation, 55 percent transferred their children to parochial schools while 45 percent moved to the suburbs during the two year implementation of desegregation. Orfield (1978) by contrast, found almost no white flight to the suburbs in his analysis of the Los Angeles housing market in 1978, the year of desegregation implementation.

Boston's relatively larger flight to the suburbs may be attributable to the greater accessability of Boston's suburbs, as well as the relatively low rate of home ownership in the central city. (Renters are more likely to move than homeowners.) Boston's central city is the smallest proportion of the SMSA of the ten largest cities in the United States.

Taylor and Stinchcombe's (1977) analysis of the same survey data analyzed in Estabrook (1980) indicates that individuals who moved out of the city after desegregation tended to have the same demographic characteristics as those who would ordinarily move to the suburbs--primarily renters[8], young people, those without children, and those who had resided in their neighborhood for less than three years. There was no association between moving out of the city and various racial and school desegregation attitudes, either before or after demographic characteristics were taken into account. Estabrook (1980) finds similar relationships except that in her analysis those who moved were actually more in favor of desegregation than those who stayed. McConahay and Hawley (1980) also found this. Estabrook points out that longitudinal non-panel surveys may produce misleading findings because those most supportive of desegregation leave, thus making it appear that attitudes are becoming more unfavorable or unchanging when the opposite might be occurring.

The conclusions of two aggregate national studies [Clotfelter (1976a) and Frey (1977)] of the effect of school desegregation on white suburbanization are not relevant because both analyzed white migration during the period from 1960 to 1970.[9] There was very little desegregation during this time period and virtually no mandatory reassignment of white students.

Equally as important as white flight is the problem of "nonentrance." Studies of residential transition, for example, (see Molotch, 1969) have found that while neighborhoods changing from predominantly white to predominantly black often do not have higher rates of white out-migration than other areas, they do have a decrease in white in-migration. In other words, at least in the past, whites are not replaced by other whites in the normal pattern of residential relocation that occurs in any metropolitan area.

Two recent studies of Louisville shed some light on this. In the McConahay and Hawley (1978) analysis of a 1977 and 1978 survey of Louisville-Jefferson County residents, 16 percent of parents surveyed indicated that, in order to avoid busing, they would not enroll their children in the public schools when they reached school age, whereas only 2 percent expressed a desire to withdraw children who were not presently enrolled. While preferences and behavior in such situations are not highly congruent, it would seem that school nonentrance may be a serious problem. This is substantiated by Rossell and Ross's (1979) finding that the greatest cohort loss rate in Boston occurs in the first grade, and by Pride's (1980) finding that the Nashville-Davidson County school system is now losing 14 to 16 percent more than expected from birth to first grade, and that this initial cohort loss rate is carried through all grades.

On the other hand, the Cunningham (1980) and Husk (1980) study of Louisville (derived from their joint research project) indicates that residential nonentrance is a small but insignificant factor, at least in countywide school systems. Although an estimated 312 families moved out of the school system in 1975-76 to avoid school desegregation, they were apparently replaced by families with school age children, since the decline in white public school enrollment in Louisville-Jefferson County can be accounted for by the increase in private school enrollment and the declining birth rate. Husk (1980) presents data, however, which suggest that those white families who moved into Jefferson County placed their children in private schools rather than public schools.

The Implementation Year Effect of School Desegregation on White Public School Enrollment

Early studies finding no white flight from desegregation. Most of the early national aggregate analyses covering the period from 1967 (or earlier) to 1972 found little or no white flight as a result of school desegregation after controlling for other causes of declining white enrollment. Urban economists suggest this is because the decline in white public school enrollment that began in the 1960's (long before the advent of school desegregation plans) is in large part a function of the post-World War II suburbanization trend caused by market forces such as rising incomes and changes in production and transportation, public policies providing subsidies to transportation, highways, and middle income suburban housing. Discrimination against blacks caused them to be underrepresented in suburbs relative to their economic status. Central city crime and city-suburban fiscal disparities have also been suggested as possible stimulants of this white middle class exodus to the suburbs. In addition, the declining white birth rate has on its own caused a reduction of almost 1% in overall white school enrollments since 1968. The yearly decrease is now almost 2%. The black school age population has only recently begun to decline because of a declining birth rate (U.S. Bureau of the Census, 1976;

see also Sly and Pol (1978) for another analysis of this trend).

Farley's (1975) study of the largest northern and Western cities and the fifty largest Southern cities and Fitzgerald and Morgan's (1977) study of 85 U.S. cities with a population of 50,000 or more, both found no significant relationship between white flight and school integration when the 1968-1972 change in segregation (the index of dissimilarity)[10] was correlated with the percentage white enrollment decline over this period. This method, unfortunately, cannot distinguish between pre- and post-desegregation enrollment losses and most of the desegregation came at the end of this time period, rather than the beginning. This distinction is important since, during this time period, northern school districts that desegregated tended to have slightly less predesegregation white enrollment decline than those that did not desegregate. Nevertheless, if the desegregation effect is strong it can be detected even using this method.

Two other studies--Mercer and Scout's (1974) analysis of ninety California school districts from 1967 to 1973 and Rossell's (1975b) study of eighty-six Northern school districts from 1964 to 1972--also found no white flight, probably because they made no distinction between white and black reassignments and analyzed northern school districts during a time period when, on the whole, there were little or no white reassignments to black schools, which later research has found to be the primary cause of white flight from desegregation.[11]

Becker's (1978) analysis of changes in white nonpublic school enrollment between 1960 and 1970 found that in the North there was no relationship between reductions in pupil segregation and increases in white nonpublic school enrollment. There was a relationship in the South, however, although it was rather weak. As with the other early studies, this analysis is timebound--the lack of mandatory white reassignments during this period limits its usefulness in predicting future desegregation effects.

Jackson's (1975) reanalysis of James S. Colemen's early white flight study (1975a), which used data from 1967 to 1972, found no relationship between school desegregation and white flight when the entire sample was analyzed together and other variables, such as change in black population, density, and per pupil expenditures, were controlled. This study suggests Coleman found a white flight effect only because he divided his sample into large and small school districts. (The effect was found only in large districts.) Overall there seems to have been no statistically significant desegregation effect during this time period primarily because of the small number of plans with mandatory white reassignments.

In addition to these national aggregate analyses, there are several regional case studies or comparative case studies (Giles, Gatlin and Cataldo, 1976b; Bosco and Robin, 1974) that also found little or no white flight. The most widely cited of these is the Giles, Gatlin and Cataldo (1976b) study of seven Florida school districts, out of which have come numerous articles. There are, however, two problems that limit its utility in estimating the extent of white flight attributable to school desegregation. First, because it is a study of seven countywide school districts in Florida which desegregated between 1969 and 1971, it does not fit the typical northern or southern experience where the central city school district desegregates while the surrounding suburbs remain segregated.

Second, and most important, it is not a study of the impact on white enrollment of implementing a desegregation plan. By classifying as "rejectors" those parents whose children were enrolled in public schools in 1971-72, but not in 1972-73, they failed to analyze the implementation year in every school district in their sample because all had desegregated in 1971 or earlier. Indeed, in five out of the seven school districts, not even the second year impact, but only the third or fourth year impact was analyzed.

The significance of this is twofold. First, by analyzing only post-implementation years, they underestimate the amount of white flight that may have occurred since it is greatest in the implementation year. Second, the relationship between racism and white rejection may be underestimated. Parents who decide to try school desegregation for a year or two and then end up withdrawing their children often have substantially different reasons for doing so (for example, failure of a child to adjust, grade problems, problems with transportation) from those of a parent who rejects desegregation outright without even trying it (i.e. the implementation year effect). There are other relationships which may be misleading because Giles, et al. failed to analyze the implementation year. These are discussed later in this review. As long as the reader understands this is a study of post-implementation years, it is a useful contribution to our understanding of the characteristics of desegregation plans that cause variations in the degree to which whites reject desegregation during this post-implementation time period.

Early studies finding white flight from desegregation. Perhaps the most publicized and controversial study finding a relationship between school desegregation and white flight during the same time period as the studies cited above (no later than fall 1972) is that of James S. Coleman and his associates. There are two Coleman white flight studies, and most of the criticisms are of the earlier study. This study, presented at the American Educational Research Association meeting in April 1975, analyzed the effect of change in segregation from fall 1968 to fall 1969 on white enrollment change from fall 1970 to fall 1972. This particular time lag method is inappropriate for analyzing this phenomenon, since most school desegregation occurred in the later, rather than in the earlier, period. The effects of present and future desegregation are thus confused. In addition, the sample was divided into the largest twenty-one, and the next forty-six school districts. As indicated above, if Coleman had analyzed the two samples together, as other researchers had done, he probably would have found the same statistically insignificant relationship as did Jackson's (1975) reanalysis of his data.

Munford's (1973) study of 30 school districts in Mississippi ordered to desegregate in the fall of 1969-70 has been cited occasionally as demonstrating no white flight from desegregation. That is not the case. It unequivocably demonstrates extraordinary white flight from desegregation at the time of implementation. What may be misinterpreted as optimistic findings is that this flight does not always continue after the implementation year, and is not always identically related to the same racial balance in the schools.

Thus, most of the early studies were flawed in methodology or in variable measurement. Nevertheless, there is much more agreement in research findings among those that use the same time period and the same sample, regardless of methodology or variable measurement, than their concluding remarks suggest.

Later Studies Finding White Flight From Desegregation

The later Coleman study (1975) is different from the earlier one. First, it covers the time period from fall 1968 through fall 1973, thus including Memphis's desegregation with the largest white loss in the United States. Second, a different method of analysis was employed. In the later study, a pooled cross-sectional change analysis was used to analyze the effect of desegregation on white enrollment change in the same year. The analysis indicates that a substantial desegregation plan results in a doubling of the normal proportional white enrollment loss (an additional 6 percent) in the year of implementation.

All of the later studies by the same researchers discussed above have concluded that school desegregation does indeed accelerate white flight in the year of implementation. Farley et al's (1979) study of the 100 largest metropolitan areas through fall 1974 suggests that most cities will have a doubling of their normal white loss rate (from four to eight percent) with a reduction of twenty points in their index of dissimilarity.

Clotfelter's 1979 reanalysis of Coleman's data, using the same pooled yearly cross-sectional change analysis, found that an increase in white exposure to black students in any one year has a strong negative effect on white enrollment in that year if the proportion black in the average white child's school is more than seven percent. For districts with less than seven percent black in the average white child's school, change in interracial exposure has no significant effect on white enrollment.[12]

Rossell's (1978a) study of the impact of school desegregation reassignments on white enrollment in 113 school districts through fall 1975 uses a quasi-experimental methodology that permits the analysis of effects peculiar to the period before, during and after desegregation. The average desegregation plan, 30 percent blacks reassigned, 5 percent whites reassigned with a reduction in segregation of 30 percentage points results in a reduction of 5 percentage points in the white enrollment of city school districts less than 35 percent black, 2 percentage points in countywide school districts less than 35 percent black, 8 percentage points in city school districts greater than 35 percent black, and 6 percentage points in countywide school districts greater than 35 percent black. What distinguishes this study from others is the separation of black reassignments to white schools from white reassignments to black schools as independent variables. All other comparative school district studies combine black and white reassignments together when measuring changes in segregation. As will be discussed later in this review, failing to distinguish between these different policy measures can produce misleading results.

Armor (1980) attempts to correct for this in his analysis of 52 northern and southern court-ordered desegregated school districts. His assumption is that school districts which desegregate under court order will all have mandatory white reassignments. This is incorrect. There are numerous instances, some very recent, such as San Diego (1977) and Milwaukee (1976), in which courts have allowed plans which call for no mandatory reassignments of whites. Moreover, there is extraordinary variation in the proportion of whites reassigned in different court-ordered desegregation plans. Because Armor does not calculate what proportion of whites were reassigned, or even how much desegregation has been accomplished, he is unable to determine why the court-ordered school districts in his sample vary from an additional 2 percentage point white enrollment loss in Springfield, Massachusetts to an additional 36 percentage point white enrollment loss in Jackson, Mississippi after the implementation of desegregation.

There are also some problems with Armor's methodology which make his findings somewhat suspect. Armor estimates projected white enrollment with annual birth rates adjusted to reflect both survival and net out-migration. It is not at all clear, however, that one can predict the 1970 to 1980 "normal" white enrollment trend from the 1960 to 1970 trend, or [illegible] in some cases, the 1950 to 1960 to 1970 trend. His projections for "normal" white enrollment in the first year before the desegregation plan are, in half of the school districts, different enough from the actual change in white enrollment to call the method into question. In addition, Armor's projected "normal" loss rates, assuming no desegregation, are about half those of the control group districts in Rossell (1978a) (those not undergoing desegregation) which had the same proportion of minority students. Thus it is not clear whether this estimated fourfold increase in white enrollment decline in the year of implementation (higher than any other analysis) for the average desegregation plan is indicative of the true loss. This method becomes even more problematical when we look at his estimated long term loss rate later in this review.

The latest analysis of the relationship between school desegregation and white flight conducted by Taeuber and Wilson (1979b) examines both within-district and between-district variation in determining the relationship between school desegregation and white flight.[13] Most comparative aggregate analyses (e.g., Coleman, 1975a, 1975b; Farley, 1975; Farley et al, 1979; Clotfelter, 1975a, 1975b, 1976a, 1976b, 1979; Rossell, 1978a; Mercer and Scout, 1974; Becker, 1978; Frey, 1977; Jackson, 1975; Munford, 1973; and Roberts, 1978) examine between-district changes. While several case studies of one or two districts (Bosco and Robin, 1976; Lord, 1975, 1977; Lord and Catau, 1976; Levine and Meyer, 1977; Noblit and Collins, 1978; and Wegmann, 1975) examine within-district changes, only two large sample studies (Armor, 1980 and Rossell, 1975b) have examined within-district changes. Farley et al. (1979) compares the results from a between-district analysis and a within-district analysis,[14] and Rossell (1978a and 1978b) use a combination of within-district analysis and between-district analysis.[15]

Taeuber and Wilson estimate the white enrollment in a school district at any given point in time from (1) the mean white enrollment in that school district over the entire time period, including the year of implementation, and (2) the mean white enrollment across school districts during the time period being estimated. So for example, a district's white enrollment in 1970 would be a function of its white enrollment from 1968 through 1976,[16] and the average white enrollment for all school districts in 1970. A regression equation then estimates the predicted white enrollment at any point in time for any school district from these two variables. The difference between the predicted and the actual--the residual white enrollment--is assumed by the authors to be that portion of white enrollment which is "abnormal" and thus affected by desegregation. This residual white enrollment is then the dependent variable in their multiple regression analysis.

There are two problems with this analysis. The first problem is that in averaging white enrollment over time in a district--the first step in estimating the residual white enrollment, the authors have partly taken out the desegregation effect. This can be demonstrated below.

	YEARS								
				DESEGREGATION					
	1968	1969	1970	1971	1972	1973	1974	1975	1976
White Enrollment (in thousands)	74	72	70	60	50	45	44	43	42

The mean white enrollment for this entire time period is 55,600. Most of the time points which went into this average were post-desegregation (1971-76), and thus we have the anomolous situation of a large decline in white enrollment in 1971 actually being almost 5,000 students above the mean. If a linear trend analysis were used to estimate the pre-desegregation trend, the implementation year white enrollment would be 8,000 below the predicted white enrollment in 1971 of 68,000. I think most people would agree this is a more reasonable estimate than 5,000 above the mean.

Even more problematical is their use of raw white enrollment in their estimations. Their dependent variable is the residual raw white enrollment in contrast to every other comparative study which has used a standardized white enrollment measure (usually the proportional white enrollment change). Their dependent variable is thus defective on three counts. First, as explained above, it has part of the desegregation effect removed from it by the averaging across time within one district. (This would be true even if it were measured as proportional white enrollment change.) Second, it is biased by the estimation of raw white enrollment in a given district from other districts which vary considerably in white enrollment size at the same point in time. Third, since the equation predicts the residual raw white enrollment, the coefficients for the various variables are on the same scale as residual raw white enrollment. The equation thus tells us that a given increase in interracial exposure (measured in percentages or proportions) will produce exactly the same raw white enrollment loss in New York City as in Stamford, Connecticut. Anyone who has studied the phenomenon of white enrollment losses knows this is simply wrong. Because of these problems, the Taeuber and Wilson (1979b) study (and its conclusion that school desegregation does not produce white flight) is uninterpretable, and is excluded from further tabulations, such as the table shown below, and from most of the review of research findings.

Table 3 indicates the additional white enrollment decline in a school district for the average desegregation plan with both black and white reassignments, and only black reassignments in two types of school districts: those above 35 percent black and those below 35 percent black. Since most studies use an aggregate measure of change in school segregation and do not differentiate between black and white reassignments, some reinterpretation had to be made to translate the studies into black and white, or black only, reassignment plans. This was done by means of the equation predicting change in segregation from black and white reassignments in Rossell (1978a). The average desegregation plan with black and white reassignments represents a reduction in segregation of 30 percentage points, 30 percent blacks reassigned and 5 percent whites reassigned. The average black only desegregation plan represents a reduction in segregation of 3 percentage points and 8 percent blacks reassigned.

The studies that have been conducted at the school level indicate that

Table 3

Implementation Year Findings on Additional Increase in White Enrollment Decline Due to Desegregation: % and Number of Studies

			Districts > 35% Black			
		+10%	10-8%	7-4%	3-1%	0
Average[a]						
2 Way	%		63	38		
Reassignment	N		(5)	(3)		
Average[b]						
1 Way	%		30	30	30	
Reassignment	N		(1)	(1)	(1)	

			Districts < 35% Black			
		+10%	10-8%	7-4%	3-1%	0
Average[a]						
2 Way	%		29	43	29	
Reassignment	N		(2)	(3)	(2)	
Average[b]						
1 Way	%		30		30	30
Reassignment	N		(1)		(1)	(1)

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[a] -30 points index of dissimilarity
30 percent blacks reassigned
5 percent whites reassigned

[b] -3 points index of dissimilarity
8 percent blacks reassigned

the average big city school system above 35 percent minority can expect a total white enrollment decline between 35 and 50 percent in those schools paired with minority schools (Rossell, 1980; Rossell and Ross, 1979). The decline due solely to desegregation is about 35 percent with most of that occurring when whites are reassigned to minority schools (Rossell and Ross, 1979). Pride (1980), using a cohort retention rate technique similar to Armor (1980), found the white cohort loss rate was as high as 49 percent in two elementary schools located in black areas in Nashville. The average white loss rate for schools in black areas was 24 percent. For cluster schools in white areas, the average white loss rate was 7 percent.

Causes of Variations in the Implementation Year Desegregation Effect

In most comparative white flight studies, the only characteristic of the plan which is measured is the change in district segregation. Thus we typically have little or no information as to the characteristics of a desegregation plan that can be manipulated in order to minimize negative outcomes and maximize positive outcomes. Such characteristics as the source of the desegregation order, the type of reassignments (for example, black reassignments to white schools and white reassignments to black schools), as well as other characteristics of plans are usually not included in the analysis.[17]

White Versus Black Reassignments

Numerous case studies have noted that greater white flight occurs when whites are reassigned to minority schools than when minorities are reassigned to white schools (Lord, 1975; Lord and Catau, 1976; Lord, 1977; Pride and Woodard, 1978; Pride, 1980; Giles, Gatlin and Cataldo, 1976b; Rossell and Ross, 1979). In addition, one comparative national analysis (Rossell, 1978a) using multiple regression, has demonstrated the disparate effect of white and black reassignments. Although Taeuber and Wilson (1979b) criticize the calculation of white reassignments in Rossell (1978a), Rossell and Ross's (1979) school loss rate analysis of Boston from 1974-79, using actual white reassignments obtained from the Boston School Department, produce essentially the same results as in Rossell's (1978a) aggregate analysis of estimated white transfers.[18] Both studies show white reassignments to produce two to three times the white flight of black reassignments. Hence, studies such as Coleman, et al., 1975a, 1975b; Farley, 1975; Farley et al., 1978; Armor, 1980; and Taeuber and Wilson, 1979 which lump both types of reassignments into one aggregate measure of change in segregation will often produce misleading results, particularly when these are related to other characteristics of the plan.

Rossell and Ross (1979), Giles, Gatlin, and Cataldo (1974) and Husk (1980) also find very similar white "no-show" rates any time white students are reassigned to black schools regardless of whether it is the implementation year or post-implementation year. In short, every time you reassign white students you lose some. Thus, it may be that the reason most school districts have a declining white enrollment loss rate in post-implementation years is simply because they do not reassign students after that.

The Interaction Between School Desegregation and Proportion Black

Virtually all of the aggregate studies have detected a significant interaction effect between percentage black and the extent of desegregation in terms of their effect on white flight. That is, a school district or school with a large proportion of students who are black will have more white flight with a given desegregation plan than will a school district with a small proportion of students who are black.

Rossell (1978a); Giles, Gatlin, and Cataldo (1977); and Giles, Cataldo, and Gatlin (1975) argue that the tipping point theory does not adequately explain the white flight phenomenon where the central school administration, either on their own or under court order, reassigns students for the purposes of desegregation. The tipping point theory originated in studies of residential succession (e.g., see Meyerson and Banfield, 1955; Molotch, 1969; Aldrich, 1975; and Wolf, 1963).

As indicated above there is some confusion in the literature, however, over the differences between school desegregation resulting from residential succession and that resulting from administratively controlled desegregation. In fact, these are two different phenomena. In the blue-collar, northern residential succession model, blacks begin moving into a neighborhood and as a result the neighborhood school becomes increasingly black primarily because whites who move out are not replaced by other whites. Thus, the unwilling white family is exposed to two types of desegregation--residential desegregation and school desegregation--as a combined economic and social threat. There is no administrative control of this process and thus it may begin to accelerate after reaching a certain proportion black, usually estimated to be 30 percent, although there is no agreement over this.[19] Cities typically have few, if any, resources with which to stabilize this process and rarely do any try. Therefore, it would not be unreasonable for a white parent to assume that once this process of residential succession begins, both the neighborhood and school ultimately will become all black.[20]

With administratively controlled school desegregation, by contrast, desegregation occurs only in the school, not in the neighborhood. In addition, although the white family may be unwilling to desegregate, they at least have a guarantee of racial balance. Indeed, white families living in racially changing neighborhoods often have a reduction in the proportion black in their school because the school is racially balanced to conform to the citywide proportion, rather than that of the neighborhood.[21]

The studies of school desegregation and white flight have found, either a first order interaction effect between school desegregation and the proportion black (or minority) (Coleman, et al., 1975a, 1975b; Farley, 1975; Farley et al., 1979; Pride and Woodard, 1979; Pride, 1980; Rossell and Ross, 1979; Rossell, 1980) or a threshold effect (Giles, Cataldo and Gatlin, 1975; Giles, Gatlin and Cataldo, 1976b; and Rossell 1978a), but only in the year of implementation. A first order interaction effect means that the greater the proportion black and the greater the desegregation, the more white flight. With a threshold effect, however, the rate of white rejection increases at a certain percentage minority, but not after that.[22] Giles, Cataldo, and Gatlin (1975), for example, found that the rate of white rejection increased when a school became 30 percent black and also when it became 50 percent black, but this rejection rate did not increase when the school composition was between 30 and 50 percent, or above 50 percent. Rossell's (1978a) 113 school district study found a threshold effect at 35 percent black in the school district as a whole.[23] At that point white flight was substantially greater.

Phasing-In Desegregation Plans

Some school districts phase-in their desegregation plans over two or three years, either by grade level or geographic region. For example, in Fall 1974, Boston implemented a partial desegregation plan affecting only certain neighborhoods in the city. In Fall 1975 this was expanded to the rest of the city's neighborhoods. Some school districts desegregate one grade level (e.g., high schools or elementary schools) in the first year, and then expand the plan to the other grades in later years. The school district's rationale for doing this is that the task of desegregating an entire school system in one year is so difficult that implementation will go smoother if it can be spread out over several years.

There is some evidence, however, that phasing-in plans, if they include mandatory white reassignments, may cause greater white flight than simply implementing a plan in its entirety in one year (Rossell, 1978a).[24] Phased-in plans usually publicize the desegregation expansion planned for the next stages, alerting parents to their child's impending reassignment. Parents thus have more time to locate alternative schooling, housing, or jobs outside of the desegregating school district. Both Rossell (1978a) and Armor (1980) agree that the more advance notice parents are given of the impending desegregation plan, the greater the white flight.

Metropolitan Plans

Most studies and experts agree that metropolitan plans, or countywide plans, all other things being equal, will have less white flight in response to school desegregation than city-only plans. There are three reasons for this. First, because countywide plans incorporate suburban areas (where blacks are typically underrepresented), they will have a smaller proportion of students who are black in their school system than most city school districts. Second, there will be a diminished opportunity for residential relocation to a more segregated school district. The more segregated the metropolitan area is in comparison to the desegregating school district, the greater the decline in white enrollment in that school district (see Coleman et al., 1975; Farley et al., 1979; Armor, 1980; Rossell, 1978a). If the entire metropolitan area is desegregated, there will be no segregated public schools for residents of the desegregating school district to escape to, and thus there will be less white enrollment decline in the desegregating school district. Third, countywide school districts will contain more of the suburban amenities which prompted middle class suburbanization in the first place, and thus the "pull" factors stimulating movement outside the school district will not be operating as they do in city school districts.

Southern vs. Northern School Districts

The evidence is inconclusive as to whether southern city school districts have greater white enrollment decline than northern school districts with the same desegregation plan. Coleman et al. (1975a, 1975b) found such an effect, but Clotfelter (1979), in reanalyzing Coleman's data, did not. Determining a North-South difference is made extremely difficult because of the problem of multicollinearity: southern school districts tend to be countywide and almost all northern school districts citywide. Since countywide school districts have less white flight, the effect of southernness is masked by this.

Board-Ordered vs. Court-Ordered Plans

As indicated at the beginning of this article, terms such as mandatory and voluntary desegregation are often confused with court-ordered and board-ordered desegregation. The terms mandatory and voluntary refer to the degree of parental choice, whereas the terms court-ordered and board-ordered refer to the source of the order to desegregate.

Several studies (Coleman, 1975a, 1975b; Armor, 1980) have assumed that court-ordered desegregation, all other things being equal, leads to greater white flight than board-ordered plans. There is simply no evidence to substantiate this. Because the proportion of students reassigned--particularly white students--is much greater in court-ordered plans than in board-ordered plans, and because few board-ordered plans include mandatory white reassignments, the white flight resulting from these two types of plans cannot be compared. Berkeley, the only school district in Rossell's (1978a) study of 113 city school districts with a board-ordered plan that reassigned a significant proportion of white students to black schools on a mandatory basis, actually had a greater proportional white loss than Pasadena, the most extensive court-ordered plan in the 113 district sample.

This suggests that the characteristics of the plan--for example, whether there is parental choice regarding reassignments—are much more important than the source of the order. There are two plausible explanations for why this would be the case. First, even in a board-ordered mandatory plan there is likely to be a large segment of the population that is opposed. (For example, an unsuccessful recall election was held in Berkeley in 1968 after the board implemented a mandatory desegregation plan.) These dissatisfied residents can constitute a potential significant source of white flight even if they are only a minority proportion of the population. Second, support for school desegregation (which would be expected in middle-class communities with board-ordered plans) is not reliably related to white flight behavior (McConahay and Hawley, 1978; Giles, Gatlin, and Cataldo, 1976b; Estabrook, 1980). As Giles and Gatlin (1980) demonstrate, attitudes are not as important in predicting actual behavior as is self-interest.

Elementary vs. Secondary School Desegregation

Evidence that there is greater white flight with elementary school desegregation than with secondary school desegregation is found in three case studies of school loss rates, one of Denver (Rossell, 1978a) and two of Boston (Massachusetts Research Center, 1976:20; Rossell and Ross, 1979).

Rossell's (1980) study of school enrollment loss rates in Los Angeles indicates, by contrast, that junior high schools had higher loss rate rates than elementary schools in the implementation year. This contrasting finding may be a product of the exclusion of high schools and grades 1 - 3 from the Los Angeles plan. (Typically grades 1 - 3 have the highest loss rates.) In the post-implementation years, however, the elementary grades (4 - 6) in Los Angeles had higher loss rates than the junior high school grades (7 + 8), possibly as a result of the elementary school nonentrance problems discussed above.

Social Status and White Flight

Parental income and, to a lesser degree, education are related to white student withdrawal from desegregated schools. There is some evidence to suggest that those individuals who do withdraw their children in response to school desegregation tend to be of higher income or educational level than those who stay (Giles, Gatlin and Cataldo, 1976b; Lord, 1975; Pride and Woodard, 1978; Pride, 1980; and Rossell, 1980). In addition, Rossell (1980) found the higher the achievement scores of the white school(s) paired or clustered with minority school(s), the greater the white flight.

Parental Attitudes

Giles, Gatlin, and Cataldo (1976b) found no relationship between racism and white withdrawal of their children from the desegregated schools. They did find, however, that attitudes toward the implementation of desegregation were important predictors of withdrawal, and Giles and Gatlin (1980) found self-interest to be the most important in white withdrawal. (It should be remembered, however, this is a study of post-implementation years.) Cusick, Gerbing, and Russell (1979) found no direct relationship between racism and white movement to the suburbs after desegregation in Pontiac. The most important predictor of white flight was the parents' attitudes toward the quality of life in the city, and attitudes toward busing. One's attitudes toward the quality of life in the city, however, were highly predicted by racism. Thus, racism in this study had an indirect effect on white flight from the city.

As mentioned earlier, Taylor and Stinchcombe (1977) found no difference in support for integration between those who moved to the suburbs and those who did not, and Estabrook (1980) and McConahay and Hawley (1978) actually found movers to be more supportive. Estabrook found, however, that transfer to private or parochial schools was associated with conservative racial attitudes, negative attitudes toward busing, and negative attitudes toward the manner of implementation of desegregation. Interestingly, she also found that positive attitudes regarding the quality of schools before desegregation were associated with transfer to parochial or private schools. Cunningham (1980) found parents who withdrew their children to private schools in Nashville-Davidson to be scrupulous in avoiding any statement of unwillingness to have their children attend school with blacks. The reason most often expressed for withdrawal was their perception that the quality of education provided by the public school system was poor.

Minority School Educational Quality

Pride and Woodard (1978) find such nonracial characteristics of the minority receiving school as the quality of the physical plant and the average school reading scores, and the rate of suspensions (Pride, 1980) to have no relationship to white flight. Rossell (1980) finds that in Los Angeles in the implementation year not only did the average combined math and reading achievement score[25] in the minority school have no relationship to white flight, but neither did the social status of the minority school (as measured by their Title I rank).[26] Only the average achievement scores and social status of the white school(s) paired or clustered with the minority school(s) were significantly related to white flight. The higher the achievement score and social status of the white sending school, the greater the white flight in both the implementation year and post-implementation year.

The size of the minority school may also increase white flight. The larger the size of the school (pre-desegregation), the greater the white flight in both the implementation year and post-implementation year (Rossell, 1980). In addition, newly constructed schools even in minority neighborhoods, all other things being equal, have less white flight than older schools (Massachusetts Research Center, 1976; Rossell and Ross, 1979).

Busing Distances

The research findings on the effect of busing distances on white flight seem contradictory. Giles, Gatlin, and Cataldo's (1977) study of Florida school districts and Pride and Woodard's (1978) study of Louisville and Nashville find no relationship between busing distances and white flight. Nor does Pride's (1980) study of Nashville. The Massachusetts Research Center's (1976) analysis of Boston and Rossell's (1980) analysis of Los Angeles, on the other hand, find greater busing distances produce greater white flight. Rossell also finds an interaction effect between busing distances and the achievement scores of the white school. The greater the busing distance and the higher the average white school achievement score, the greater the white flight. One important difference between the studies finding no white flight effect and those finding an effect is that the former are all of county school districts and the latter are all of city school districts. Moreover, the Giles, Gatlin, and Cataldo (1976b) study of Florida county school districts is of post-implementation years, while the Massachusetts Research Center study is of the implementation year. The Rossell (1980) study of Los Angeles distinguishes between the implementation year and post-implementation year. Rossell finds no busing distance effect on white flight in Los Angeles in the post-implementation year (1979). Parents who are willing to have their children bused a certain distance, or who do not have the means to withdraw their children in the implementation year, do not withdraw them later because the bus ride is too long. This difference in implementation year and post-implementation effects is substantiated by Giles, Gatlin, and Cataldo (1974) and Giles and Gatlin (1980) who find that busing distance is related to white withdrawal only among those persons whose children are experiencing the onset of busing. They find the distance can be increased in the subsequent years of busing without penalty. In addition, Giles and Gatlin (1980) find, as does Rossell (1980), that there is an interaction effect between busing distance (at the time of onset or increase) and the proportion black in the receiving school.

Because of the cost of busing, school districts may be tempted to stagger school starting times in order to minimize the number of buses which have to be bought or rented. Pride and Woodard (1978) find staggered school starting times will produce greater white flight because of the inconvenience for parents who have children going to school at different times.

The Role of Protest and City Leadership

Few studies have examined systematically the effect of protest and leadership support for desegregation on white flight, primarily because the costs of collecting such data are quite high. Even the Giles, Gatlin, and Cataldo (1976b) study, which has data on the protest activity of those parents interviewed, does not try to relate the extent of protest with the extent of white flight, although they note that protestors were no more likely to withdraw their children from the public schools than were those who did not protest.

The two studies to systematically examine city leadership find it has no relationship to white flight. Giles and Gatlin (1980) demonstrate that compliers, potential avoiders, and actual avoiders do not differ in their perception of local school leaders' support or opposition to school desegregation. Rossell's (1978b) ten city study found that leadership statements had no effect on white flight when the extent of school desegregation and the degree of protest were controlled. The findings of both studies may be partly a result of the lack of leadership statements one way or the other, particularly those in support of school desegregation.

The Role of the Media in Publicizing Protest

Newspaper coverage of school desegregation appears to have a significant effect on white flight. Rossell (1978b) found this to be true even when the extent of school desegregation reassignments, the proportion black, and the level of protest were controlled. The more negative the coverage of desegregation during the pre-desegregation school year, the greater the white flight. This was also true of protest demonstrations (as reported in the press) during the first six months of the school year before the desegregation plan was to be implemented. Protest can increase white flight by symbolically illustrating the perceived costs of school desegregation.

The Long Term Effect on White Flight

Most studies of the effect of school desegregation on white flight are short-term implementation year analyses. To measure the long term effect of desegregation on white flight, a quasi-experimental design (pre- and post-desegregation observations and a control group) should be employed. Coleman, et al., (1975) and Farley, et al., (1979) both used a pooled cross-sectional change analysis. Only Rossell (1978a) and Armor (1980) have actually used a quasi-experimental design. Four other studies that have employed a different approach also have produced some useful information on the long term impact of desegregation (McConahay and Hawley, 1978; Roberts, 1978; Cunningham, 1980, Husk, 1980, and Pride, 1980).

Rossell's (1978a) analysis of the long term effect in a sample of 113 school districts indicates that the implementation year effect is offset in post-implementation years by less than normal white enrollment losses. This is especially pronounced in the fifth year of desegregation. Recent analysis of a sub-sample of this data set, however, indicates there is still a negative desegregation effect by the fifth year of desegregation in large, central city school districts. The overall non-negative effect of desegregation on white enrollment loss was produced by the countywide and suburban school districts which had desegregated.[27]

Coleman et al. (1975b) also found school desegregation to have a non-negative effect in post-implementation years (presented in their introductory Errata section), although it was attributed to unspecified statistical problems (p. 67). Roberts' (1978) analysis of 58 school districts found that if desegregation reassignments were 20 percent of the enrollment (average desegregation), the district would lose an additional 8.5 percent of its white enrollment in the short run, but gain an additional 6.1 percent over the long run. This analysis overestimates the long run gain because no distinction was made between black and white reassignments. As noted above, the effect of black reassigmments is quite different from the effect of white reassignments on white flight. Farley et al. (1979) also found no significant negative long term impact of school desegregation on white enrollment decline.

The McConahay and Hawley (1978) survey of Louisville-Jefferson County in 1976 and 1977 also indicates a dramatic decline in the proportion of white children who will be withdrawn from the public schools in the second and third years of the plan. The number withdrawn in the year of implementation is estimated to be between 10 and 15 percent; the proportion who will be withdrawn at the end of the first year because of busing is less than 2 percent. By the end of the second year, 1976-77, the proportion of parents saying that they would withdraw their children from the public schools because of busing was down to less than 1 percent. This indicates almost no effect, given the divergence between intent and action.

Nevertheless, as indicated above there may be some significant nonentrance effects. One type of nonentrance occurs when residents do not enroll their children in the public schools when they reach school age. Rossell and Ross (1979) have found the failure to enroll first graders is still continuing in Boston at a higher rate than before desegregation. Pride (1980) finds very much the same thing in his cohort retention analysis of Nashville-Davidson. Husk's (1980) cohort survival analysis of Louisville, on the other hand, shows declining white flight since school desegregation in 1975.

McConahay and Hawley (1978) find almost 16 percent of the parents in Louisville-Jefferson County with children too young to attend school indicated at the end of the first year of implementation of the desegregation plan that they did not intend to send their children to the public schools because of busing. Assuming these children are evenly distributed over the five preschool years and that there is a divergence between intent and action, then each year about 1 to 2 percent of the eligible white children will not be enrolled when they reach school age. The study does not, however, provide information on the differential neighborhood effect; the nonentrance impact in some neighborhoods may be offset by less than normal losses in other neighborhoods.

The Armor (1980) study of 54 court-ordered districts is one of the studies to conclude that court-ordered, mandatory school desegregation does have a long-term negative impact on white enrollment in school districts above 20 percent minority with available suburbs. He estimates that at the end of the fourth year of desegregation, these school districts will still have a loss rate that is twice their normal rate. In 23 of these districts, Armor uses a technique of estimating projected white enrollment with annual birth rates adjusted to reflect both survival and net out-migration. As noted above, there are problems with using 1970, 1960 and 1950 census data to predict future annual changes a decade later. The further along in time one gets the less accurate such predictions should be. It seems therefore, that the issue of whether school desegregation usually has a negative long-term effect on white enrollment is still a debatable one. All we know so far is that in some school districts it does and in some it doesn't.

The Effect of White Flight on Desegregation Outcomes

There is no good evidence on the effect of white flight on educational outcomes in the classroom. We know, however, that those parents of the highest income and educational levels are most likely to withdraw their children, and that in Los Angeles, the white schools with the highest achievement scores had the greatest white enrollment losses. Clearly, this is not a positive impact, but because we do not know how much the socioeconomic status of a child's classmates contributes to his or her achievement, particularly if classrooms are reorganized into competing teams, it is difficult to say what the net educational outcome is of the loss of high achieving, high status white students.

The impact of white flight on the instrumental goal of interracial contact can, however, be measured by using an index of black exposure to whites--the proportion white in the average black child's school. This index reflects white flight and thus measures the net benefit.[28] Rossell (1978a) finds that even the most extensive desegregation plan involving mandatory white reassignments produces greater interracial contact than no desegregation, and this net benefit continues at least as long as four years after the implementation of desegregation. Recent additional analysis conducted by Rossell in Boston indicates that, despite extensive implementation year white flight which still continues, although at a lower rate, the level of interracial contact in Boston in Fall 1979 is more than twice as high as it would have been if no desegregation had occurred.[29]

Coleman, et al. (1975b, p. 75) found very much the same thing. Their equations show that school districts that desegregate have, at the end of a ten-year period after desegregation, a level of interracial contact that is still twice that of school districts that have not desegregated, despite a relatively greater decline in white enrollment during this time period.

Rossell (1979) finds that although magnet-mandatory school desegregation plans produce significantly greater white flight than magnet-only desegregation plans, they also produce more than twice the interracial contact. Unfortunately, these data do not allow for the testing of long-term effects. Armor (1980) argues that if mandatory plans were compared to voluntary plans, rather than to no plan at all, over a long period such as ten years, then the voluntary plans would ultimately produce greater interracial contact because they would produce less white flight over the long term. To date, there is no evidence to support this claim.

Summary of the Research Findings on White Flight

The research on school desegregation and white flight indicates that the following propositions characterize the phenomenon of white flight:

1. The case studies find that most flight from desegregation is to private schools, within the district, rather than residential relocation outside the district.
2. The average court-ordered desegregation plan--about 30 percent black students and 5 percent white students reassigned, with a reduction in segregation of 30 points--results in an additional white enrollment loss of 8 - 10 percentage points in the year of implementation in school districts above 35 percent black.
3. White reassignments to formerly black schools result in two to three times the white enrollment loss of black reassignments to

white schools.

4. Most studies find white flight to be a function of a first order interaction effect between school desegregation and proportion black. Two studies show a threshold effect at 30 or 35 percent black.
5. The educational quality and social status of the minority receiving school has no relationship to white flight.
6. The greater the busing distance, the greater the white flight, but only in the implementation years.
7. There is greater white flight from elementary school desegregation than from secondary school desegregation.
8. Phased-in plans may result in greater white flight than plans implemented in one year because the more advance notice white parents receive, the more white flight.
9. Negative newspaper coverage of desegregation during the year before implementation increases white flight.
10. The greater the extent of protest demonstrations during the year before desegregation, the greater the white flight.
11. Those most likely to withdraw their children from the public schools because of school desegregation tend to be of higher income and educational level than those who do not. White schools with higher achievement levels have greater white loss rates with desegregation.
12. Metropolitan desegregation plans have less white enrollment loss than do city school district desegregation plans.
13. The long-term impact of school desegregation appears to be non-negative in countywide and suburban school districts.
14. There is nonentrance of preschool students from families already

residing in the school district because of school desegregation, but it is difficult to estimate the long-term impact of this.

15. School desegregation continues to have a negative long-term impact on white enrollment change in large, central city school districts above 35 percent minority.
16. All school desegregation plans result in a substantial net benefit in terms of the instrumental goal of interracial contact. The proportion white in the average black child's school increases substantially despite implementation year losses in white enrollment. Moreover, this increase remains for as long as four years after. This effect is greatest in school districts with enrollments at or above 35 percent black, despite the fact that it is these districts which experience the greatest losses in white enrollment upon desegregation.
17. Magnet-mandatory desegregation plans produce more interracial contact, despite greater white flight, than magnet-only plans, at least over the short run.

The Effect of School Desegregation on Community Attitudes

This section describes (1) the findings of national surveys on racial attitudes and opinions, (2) the distribution of attitudes in a small number of desegregated communities, (3) voting behavior in a small number of desegregated communities, and (4) the effect of the community climate of opinion on student attitudes. The notion that school desegregation might bring about a positive change in attitudes toward racial issues is based on the research findings of two decades of social psychological research. This research indicates that when individuals are forced to change their behavior so that behavior is congruent with attitudes, attitudes will change in order to conform to behavior. A significant component of the theory of cognitive dissonance which explains these research findings is that the greatest attitudinal changes will occur when the least force is used. Thus, the extent and direction of attitude change is likely to depend not only on the characteristics of the individual involved, but also the degree to which force is associated with the desegregation process. It is likely that the greater the protest demonstrations and white flight in the first stage of desegregation, the more slowly attitudes will change in the second stage.

The National Surveys

National surveys on racial integration attitudes over the last decade have indicated a trend toward increasing acceptance of the principle of integration, despite predictions of a backlash against forced desegregation. The National Opinion Research Center has conducted national surveys on racial attitudes since 1942. One survey question periodically repeated is whether white and black students should attend school together. In 1942 the proportion of respondents agreeing was 30 percent; in 1956, 48 percent; in 1963, 63 percent; in 1970, 74 percent; in 1972, 86 percent; and in 1976, 83 percent (Sheatsley, 1966; Taylor, Sheatsley and Greeley, 1978).

Taylor, Sheatsley and Greeley (1978) have charted trends in responses to the questions in the Treiman scale of racial tolerance.[30] Their data indicate that in the South, the greatest reduction in racial intolerance occurred between 1970 and 1972 shortly after the greatest reduction in school segregation (between 1969 and 1971).[31] While it cannot be concluded from this that the reduction in segregation had any relationship to the reduction in racial intolerance, it seems reasonable to conclude that desegregation failed to produce a backlash. Moreover, the smaller reduction in school segregation in the North and West is paralleled by a similarly small decrease in racial intolerance.

Sheatsley's (1966) analysis of the 1956 and 1963 NORC surveys attempted to distinguish cause and effect between school desegregation and subsequent attitude change by establishing that the areas in the South that were integrated first were not areas where majority opinion was in favor of integration--only 31 percent of whites in these areas were in favor of integrated schools. By 1963, after substantial desegregation, this figure had increased to 58 percent. At the same time, only 38 percent of whites approved of integrated schools in those southern communities that had only token desegregation, and only 28 percent approved in those school systems which remained highly segregated. However, the conclusion that school integration resulted in an increase in pro-integration attitudes in the desegregated school districts must be treated with some caution since the analysis failed to interview the same people before and after desegregation in the same desegregating communities.

The NORC surveys also indicate that racial attitudes are stable over time, despite violent confrontations and outbreaks of racial hostility. This suggests there is little or no backlash with regard to racial goals. There may be a backlash, however, regarding methods and the speed with which these goals are attained. Ross (1973) found a significant correlation between the incidence of racial confrontations reported on the front page of The New York Times and negative responses by whites to a question whether blacks were pushing "too fast." As the number of racial confrontations increased, the proportion of whites responding "too fast" went from 30 percent in 1962 to over 50 percent in 1966. This suggests that, at least at the national level, there are attitudes regarding methods and the speed of desegregation that are responsive to short term events, even while there is increasing acceptance of the ultimate goal.

Community Attitudes

National surveys cannot provide us with information on variations in attitudes among and within communities. The most accurate method of determining the effect of school desegregation (or any policy) on the attitudes (or any other characteristic) of those living in a particular community is a quasi-experimental panel survey--observations, over at least a decade, of pre- and post-desegregation attitudes held by the same individuals in that community, as well as of a comparable control group of individuals unaffected by desegregation. Because of the technical problems and the costs involved in employing such a design, there is no such study.

The few available studies provide at least a tentative substantiation of the findings of the national surveys regarding the absence of a backlash against the principle of school integration. The Taylor and Stinchcombe (1977) and Estabrook (1980) analyses of Boston found that the same proportion of individuals supported racial integration or school integration, or both, before desegregation as after, despite the extensive protest and violence. In addition to this study, McConahay and Hawley (1978) and Slawski (1976) show little difference in support for racial or school integration between those who have their children in public school and those who do not. Only Estabrook's (1980) study and Abney's (1976) study, however, are quasi-experimental panel surveys, and neither has a survey after the implementation year.

In the other studies there is no information on what is happening concurrently to attitudes in segregated school districts, and the same respondents are not re-interviewed in the districts being studied. Therefore, there is no basis for determining what kind of attitudinal change has occurred. Moreover, almost all of these studies were conducted in school districts that had considerable protest and violence over school desegregation and significant white flight. Thus we have little variance with which to test the hypothesis that the characteristics of the first phase of social change will affect the second phase of social change.

Despite these limitations, there is useful information that can be obtained from these surveys. They indicate, for example, that the importance of busing as a problem begins to recede by the second year of implementation. At the end of the first year of desegregation (1975-76) in Louisville-Jefferson County, 70 percent of the respondents cited busing as the most important problem facing the community. By the end of the second year, only 48 percent of the respondents did so (McConahay and Hawley, 1978).

Although there is a high level of support for the principle of school integration, busing to achieve racial balance or school desegregation is overwhelmingly opposed (Harris, 1976). Busing is a symbol that whites appear to automatically reject, regardless of how inconsistent this is with other attitudes, and although they may at the same time support specific plans that involve some busing (Taylor and Stinchcombe, 1977). Slawski's (1976) Pontiac survey showed that in 1975, 84 percent of all white parents preferred that their children attend a school 25 to 50 percent black. This is an increase of six percentage points from the previous year when 78 percent supported "the desegregation plan using busing" which produced racially balanced schools between 25 and 50 percent black. Despite this increased support for the principle of racial balance, only 13 percent of white parents supported "the desegregation plan using busing" even though it produced that racial balance. This apparent inconsistency is similarly demonstrated in McConahay and Hawley's (1978) survey of Louisville-Jefferson County which showed that in 1977, 50 percent of all whites thought it a "good idea" for children to go to schools that have the same proportion of blacks and whites as generally exists in the Louisville-Jefferson County area. Nevertheless, only 5 percent of the whites supported the school district's busing plan which achieved exactly that racial balance.

Both black and white respondents in Louisville-Jefferson County greatly underestimated their neighbors' support for racially balanced schools. While

50 percent of the whites thought racial balance was a good idea, only 19 percent believed their neighbors thought so. Although 80 percent of blacks thought racially balanced schools were a good idea, only 55 percent thought their neighbors did. Weatherford's (1980) survey of Los Angeles demonstrates that white attitudes toward busing for racial integration are significantly affected by the racial attitudes of their neighbors. Therefore, a partial explanation for the tremendous opposition to actual busing plans may be this false perception of overwhelming community opposition to racial balance.

The Ross study of Boston, and the McConahay and Hawley study of Louisville, indicate that white parents whose school age children participate in the desegregation plan have greater support for desegregation at the end of the first year than parents of pre-school children. Ross's study indicates that whites whose children were bused during Phase I (1974-75) of Boston's desegregation plan were generally more certain black children benefitted from integration and less certain about the negative effect of school desegregation on white children than those with pre-school children. In Louisville, the proportion of parents intending not to enroll their pre-school children in the public schools when they reached school age was four times greater for those with no school age children than for those who already had some children in the public schools. Normally we would expect parents of pre-school children to be more supportive of desegregation than parents of school age children because the former group on average will be younger than the latter group. If the reverse occurs, it may be because the parents with school age children participating in the program are justifying their decision to keep their children in the public school system, or their inability to find alternative schooling, by subconsciously changing their attitudes to conform to their behavior.

Abney's (1976) quasi-experimental survey in Jackson, Mississippi suggests this possibility. The first survey was conducted in the summer before school opened, but after the court order. The second survey was conducted at the end of the first year of desegregation. Abney compared the attitude changes of those parents who had kept their children in the public schools to those who had transferred them to private schools in order to assess the effects of compliance on support for integration. Support for integration was measured by the maximum number of blacks a parent felt he or she could tolerate in his or her child's class of 30 students. Among the parents who kept their children in the public schools, 13 percent cited a lower number of blacks than they had the year before, 37 percent cited the same number, while 28 percent increased the number of blacks they would accept in their child's classroom. The maximum number expressed was 15 which represents a 50-50 racial balance in the classroom. Among those parents who transferred their children to private schools, 20 percent expressed a lower number of blacks than the previous year, 55 percent expressed the same number, and only 13 percent were willing to have a larger number of blacks in their child's classroom.

Serow and Solomon (1979) conducted a post-implementation attitudinal survey in a countywide suburban school district in the South where desegregation was implemented in 12 elementary schools, but not yet in the rest of the school system. Both white and minority parents whose children were in the desegregated schools had significantly greater support for the principle of school desegregation, higher ratings of various methods of desegregation, and a higher evaluation of the success of the new desegregation program than those parents whose children were in schools that had not yet been desegregated. The one exception to this pattern is that minority parents whose children were in desegregated schools had a lower rating of their child's performance in his or her school than minority parents in yet to be desegregated schools.

Whites, however, followed the overall pattern of rating their child's school experience as more successful than parents whose children were in yet to be desegregated schools, although the difference was not statistically significant. The greater support for desegregation by parents whose children were in desegregated schools could be explained in two ways. The explanation Serow and Solomon favor is that these parents had access to sources of positive information about the daily progress of the integration effort. Another explanation is that their positive attitudes represent a grudging acceptance of a *fait accompli*, or an attempt to rationalize their children's involvement. Of course, all three explanations could be correct.

Despite this evidence supporting the hypothesized attitudinal change, some of these studies indicate there are strong parental fears about the outcome of school desegregation on academic performance. McConahay and Hawley (1978) found that in Louisville these fears have increased over time.[32] For example, among those opposed to busing to achieve racial desegregation (overwhelmingly white), there has been an increase between 1976 and 1977 in those who believe that busing reduces the quality of education (78 to 81 percent). More disturbingly, in this same group there has been a substantial increase (from 38 to 51 percent) in the proportion believing that "the difference in learning ability between most blacks and most whites is so great that neither group benefits from going to school together"[33] (McConahay and Hawley, 1978). On the other hand, they also find that among those supporting busing to achieve racial desegregation (overwhelmingly black), the proportion who believe that busing adversely affects the quality of education has decreased from 32 to 22 percent and the proportion believing "the difference in learning ability between most blacks and most whites is so great that neither group benefits from going to school together," has decreased from 12 to 5 percent. Cunningham (1980) finds similarly that although Louisville black parents have had to bear the brunt of the inconvenience of busing because black children are bused nearly all of their school years, they do the least complaining and maintain the most favorable attitudes toward the school system.

In spite of this apparent polarization and increase in racial prejudice on some issues, a majority of whites surveyed in the Louisville study feel their relations with blacks in a variety of settings (for example, work, church, sporting events, and stores) are friendly or neutral, and there has been little change in this proportion. Moreover, there has been an increase since the first year of the plan in the proportion of whites believing that relations with blacks have improved in each of these areas.

A study by Sobol and Beck (1978) produced similar findings in a Dallas survey of black parents conducted in early 1977. The Dallas school system at that time only desegregated four of its six sub-districts. One of those not desegregated was a 97 percent black sub-district. Black parents in this district felt that mixed schools offered better educational opportunities than did segregated schools. Moreover, those black parents whose children were attending mixed schools were significantly happier with their schools than those parents who said their children were in segregated schools. The evidence, such as it is, suggests that black parents continue to support school desegregation even when they bear the brunt of the burden.

The Effect of Community Attitudes on Student Attitudes

Community attitudes can significantly affect the process of school desegregation. As noted above, adult attitudes are influenced by the attitudes of their neighbors. This is also true of children. Numerous studies have found strong positive relationships between parents' attitudes and those of their children. As children grow older, however, peer and community influences grow stronger, so that by adolescence the relationship between the attitudes held by parents and those held by children is much weaker. McConahay and Hawley's (1978) Louisville-Jefferson County study included a survey of the attitudes of fifth through twelfth grade students. The results of this survey indicate that at the end of the first year of desegregation (1976), almost identical proportions of black students and black adults, on the one hand (90 percent), and white students and white adults on the other hand (51 percent), supported the principle of racial balance.

This strong similarity between the attitudes of students and of adult citizens is not solely attributable to parental influence, however. There is also a community influence. Most whites in Louisville opposed busing for desegregation (91 percent). Ninety percent of the white students whose parents opposed busing to achieve desegregation also opposed busing. On the other hand, only 44 percent of the white students whose parents favored busing to achieve desegregation also favored it. The other 56 percent paralleled the white community attitudes. Therefore, the children of those white parents who favor busing were exposed to environmental cross pressures that influenced approximately half of them to conform to that social environment rather than to their parents' opinions.

Most blacks in Louisville favored busing for desegregation (61 percent). Seventy-nine percent of the black students whose parents favored busing also favored it, but only 47 percent of the black students whose parents opposed busing also opposed it. The other 53 percent conformed to black community attitudes. Thus the children of those blacks who opposed busing were exposed to environmental cross pressures that caused half of them to adapt to that social environment, rather than to their parents' opinions. It is quite clear therefore that children, as well as adults, are influenced by environmental influences beyond the immediate family.

It is also quite likely that there is an interaction between parents' attitudes and children's attitudes in this situation. That is, not only will a child be influenced by parental and social group opinions, but the attitudes of his or her parent are likely to be reinforced or changed by the child's perception of his or her experience with desegregation. This in turn will influence the child's future perceptions. Thus, there is likely to be a rather complex process of interaction that has never been analyzed in studies of the racial attitudes of children who attend desegregated schools or of the attitudes of their parents. Indeed, too many studies, by their failure to study this interaction, imply that the school is a laboratory where their children are isolated from their community and parents.

Summary of the Research on the Effect of Desegregation on Community Attitudes

The research on community attitudes--most of which has been conducted in school districts experiencing high levels of protest and white flight--indicates that the following propositions characterize this phase of social change:

1. The reduction in school segregation in the last decade and a half has been followed by a reduction in racial intolerance in both the North and the South.
2. Over time there appears to be no backlash against the principle of racial integration despite racial confrontations and controversy surrounding school desegregation.
3. The prominence of "busing" as a problem begins to fade by the end of the first year of the implementation of a school desegregation plan.
4. Although there is increasing support for the principle of racial

integration and racially balanced schools, whites are overwhelmingly opposed to busing for racial desegregation of the schools.

5. Both blacks and whites greatly overestimate their neighbors' opposition to racial balance in the public schools, and this is important because adult attitudes are influenced by their neighborhood attitudinal context.

6. In desegregated school systems, parents who have some children attending public school are more likely to intend to enroll their preschool children in the public schools than those whose children are all preschool age. In Boston, residents with school age children in areas affected by the first phase of desegregation were more likely to have a favorable evaluation of desegregation than those without school age children.

7. While a few studies show increased prejudice after desegregation, most show no difference or more positive attitudes. None of the studies has been conducted later than the second year of desegregation and most are in school districts which experienced violence and controversy.

8. Parents in school districts which experienced violence and controversy continue to have strong fears regarding the quality of education in desegregated schools.

9. In Louisville, most whites feel their relations with blacks are friendly or neutral despite the controversy over desegregation.

10. Both community and parental opinions have a strong influence on children's attitudes toward specific desegregation issues.

The Effect of School Desegregation on Voting Behavior and Residential Integration

In this last section, the assumption that desegregation of the schools will eventually bring about behavioral changes in other areas of community life is explored. Such behavioral changes may be manifested earlier than attitudinal changes since the symbolic elements of a desegregation controversy might result in individuals giving inconsistent responses to surveys because they are reacting to the controversy, or the symbol of busing, rather than the issue itself. Under these circumstances, behavior may actually reflect more positive change and more consistency than expressed attitudes.

Voting Behavior

Taylor's (1978) survey of the Detroit metropolitan area conducted in 1972 indicates that anti-busing candidates are not highly regarded, although people may vote for them initially. About 68 percent of the white respondents agreed that "some political candidates have blown the busing issue out of proportion," and 57 percent responded that "most black and white children would do fine in school together if adults didn't stir up the situation." This suggests there is a large group of whites who believe that school desegregation should not become an issue in local politics, and whose support for candidates who make it an issue eventually fades.

There have been no systematic studies of election campaigns after a school desegregation plan has been implemented. Some recent elections provide some insight into this question, however. In a Boston Globe article "It's no to Hicks, Kerrigan, Palladino, Galvin plan." (1977) describes how three years after the implementation of Phase I of desegregation in Boston, Louis Day Hicks, John J. Kerrigan, and Pixie Palladino, the most vocal anti-busing leaders in Boston, were voted out of office at the same time that John O'Bryant, the first black school board member, was elected. This occurred.

in a city where blacks represent only 20 percent of the population and an even smaller proportion of the registered voters, and elections are at-large. In Charlotte-Mecklenburg, Sam McNinch, a prominent anti-busing school board member, was defeated for re-election in the 1974 school board elections (Maniloff, 1978). In the Louisville-Jefferson County Fall 1977 elections, the busing issue was no longer a campaign issue only two years after desegregation. Todd Hollenbach, the incumbent county executive and author of a voluntary alternative to the mandatory desegregation plan, was defeated by a Republican candidate who was considered more liberal on that issue ("Hollenbach is Defeated by McConnell," 1977).

These three elections suggest that busing eventually becomes uncontroversial and anti-busing candidates are defeated. There are numerous plausible, but unproven, explanations for the disparity between the equivocal findings of the attitudinal surveys and these positive electoral results. First, the surveys extend no further than the end of the second year of desegregation, whereas the election reversals begin to occur in the third year. It may take that long or even longer for attitudes to begin to change. If we assume no change in attitudes, it is possible that these election outcomes indicate the aspirations of whites, while the surveys represent their "realistic" assessment of the current situation and their reaction to the controversy. In other words, whites may believe that busing at this point in time does not work the way it should, but that it might if the politicians would stop "stirring things up." It may also be that whites are simply punishing anti-busing candidates for not delivering on their promise to stop busing. This does not adequately explain, however, why blacks are elected. This may occur because school desegregation may cause some whites to be more sensitive to the issue of black representation, and/or politicize blacks so they turn out to vote for black candidates. In the absence of voter surveys or precinct analyses, however, such explanations are obviously speculative.

Residential Integration

The hypothesis that school desegregation will lead to community integration is not necessarily dependent on a reduction in prejudice. Because extensive, citywide desegregation will include reassignments away from the neighborhood school unless the neighborhood attendance zone is residentially integrated, white and black families have an incentive to live in integrated neighborhoods. Moreover, the fact that racially transitional neighborhoods will have their schools racially stabilized, and perhaps a reduction in the proportion minority under a citywide plan, may provide an additional incentive for some white families to remain in such neighborhoods. Realistically, we would not expect these changes to be large in any one year, given the amount of movement that occurs normally within a city. Because the incentives are clear and obvious, however, this effect may appear before many others, and its long term impact may be profound.

A national, aggregate analysis of the relationship between school desegregation and residential desegregation is not feasible until the 1980 census is available in order to assess change since 1970. Only a few citywide plans were implemented prior to 1970, and these were at the end of the decade rather than at the beginning. Although the school districts which implemented extensive desegregation exhibit a fairly large reduction in segregation between 1960 and 1970, almost twice as much on the average as other school districts, one cannot satisfactorily differentiate cause and effect. Even when the 1980 census is available, if the effects are small they could be swallowed up at the school district level.

The only systematic study available on the relationship between school desegregation and residential integration is Pearce's (1980) study of seven matched desegregated-segregated pairs of school districts. Two of the desegregated school districts are suburban (Riverside and Racine), two are central city school districts (Springfield and Wichita), the other three desegregated school districts [Charlotte-Mecklenburg, Greenville, and Tampa-St. Petersburg (Hillsborough and Pinnellas County districts)] are countywide or metropolitan school districts. Her data indicate that between 1970 and some chosen year after 1975, depending on the availability of data, the desegregated school districts had significantly greater reductions in racial segregation (using the index of dissimilarity) than their segregated pair. At the same time, the desegregated school districts do not appear to have greater increases in the proportion black than their segregated pair.[34]

There is also some unsystematic evidence on this issue from a few case studies. Greenwood's (1972) article describes a study conducted in the Riverside school district which found fifty black families who had moved into white neighborhoods to be near their child's new school.

This phenomenon is also documented by the Kentucky Commission on Human Rights (Foushee and Hamilton, 1977; Kentucky Commission on Human Rights, 1980a, 1980b). Although the Louisville-Jefferson County school district (which includes the city and suburbs) experienced little white out-migration, the number of black students living within the city limits declined by 892 and increased by 2,503 in the suburban county (still within the school district) between 1974, the year before the plan was implemented, and 1977, the end of the second year of school desegregation. The increase in these three years was greater than the entire preceding twelve year period. Student enrollment data indicate that 86 percent of the increase in black students outside the city of Louisville took place in areas where blacks would be exempt from busing because they would be in a minority.

According to the Kentucky Human Rights Commission (1980b), 1979 apartment occupancy rates indicate that blacks are still moving in increasing numbers to white areas, and that it has had a positive effect in reducing apartment housing segregation since 1975, and as a result the amount of busing needed for school desegregation. Nevertheless, this movement has not been large enough to bring full housing integration or eliminate altogether the need for busing.

While it is difficult to determine motives without a survey, there are some significant features of the Louisville-Jefferson County desegregation plan and public housing program that suggest an explanation. First, according to the plan, any student who lives in, or moves into, a school attendance district in which he or she is in the racial minority is exempt from being reassigned away from that school. Furthermore, this aspect of the plan was publicized in a pamphlet widely distributed by the Kentucky Commission on Human Rights (1975) which listed the Jefferson County schools where blacks would be exempt from busing if they moved into the neighborhood. Second, in 1975 white residents of the East End in suburban Jefferson County distributed their own pamphlets encouraging black homeseekers to move into that area, presumably in order to "naturally" integrate those schools and thus avoid busing. Finally, in 1976, upon the urging of the Kentucky Commission on Human Rights, the Community Development Cabinet of Louisville and the Jefferson County Housing Authority merged their programs so that city families eligible for Section 8 rent subsidies would be allowed to search for housing in the suburbs and vice versa.[35] Of the 1,413 black families that signed Section 8 leases between 1976 and 1979, one third moved out of the city to white suburban Jefferson County. Virtually all of the black families already living in the suburbs chose to remain there. Hence by 1979, 51.1 percent of all black families signing Section 8 leases lived in white suburban Jefferson County (Kentucky Commission on Human Rights, 1980a).

Summary of the Research on the Effect of School Desegregation on Citizen Behavior

The evidence from these studies indicates there may be some significant positive changes in the behavior of citizens in a community after its schools have been desegregated. It is also possible this may appear before any consistent attitudinal changes are found. These behavioral changes are:

1. Black candidates are voted into office, and anti-busing candidates defeated two to three years after implementation of a school desegregation plan.
2. The systematic research evidence indicates school desegregation is related to increased residential integration.
3. The evidence from two case studies of districts with citywide busing plans (Louisville-Jefferson County and Riverside) suggests that this residential desegregation occurs because such plans motivate black families to move into white neighborhoods to be near the school to which their children have been assigned in order to avoid busing. In addition, whites have an incentive to accept them if their school becomes exempt from busing as a result.

Conclusions

The research findings concerning community response to school desegregation are, with the exception of the research on white flight, based on only a small number of studies. In addition, most of the research on attitudes has been conducted in communities that underwent extensive protest, violence, and white flight when they desegregated. Thus, we do not have enough variation in the first phase of social change (the reaction to the decision) to adequately understand how it affects the second phase of social change (the reduction in prejudiced attitudes and behavior).

The research on protest demonstrations suggests that participation in protest is a function of (1) the characteristics of the desegregation plan (particularly whether whites are bused into minority neighborhoods) and (2) a supportive neighborhood environment. Furthermore, a reasonable assumption is that the first condition contributes to the second. The greater the proportion of whites reassigned to schools in black neighborhoods, the more likely it is that entire white neighborhoods will be affected and thus united in opposition. In addition, the kind of protest one participates in is related to one's social psychological perspective. Organized protest participation is most likely to be related to feelings of economic deprivation relative to white workers; individual acts of protest are most likely to be related to a high sense of efficacy coupled with a distrust of the federal government; while anti-black violence is related to feelings of economic deprivation relative to black workers.

Demonstrations can have serious consequences for student achievement and race relations either directly through their effect on attendance and in-school behavior, or indirectly through their effect on white flight and polarization of community attitudes. Nevertheless, protest demonstrations and protest voting rarely occur after the implementation year, and are not successful in preventing desegregation once the decision has been made.

From a practical standpoint, the first instrumental goal of school desegregation is behavioral compliance. There can be no desegregation if there are no white students left in the school system. School districts (e.g. Inglewood, California) have been released from their court order when the white enrollment decline has become so great that minority students are simply being bused from one minority school to another. We know that white flight implementation year costs are related to the particular characteristics of a desegregation plan and of a school district. On average, a city school system less than 35 percent black can expect to lose an additional 5 percent of its white enrollment with an average two-way desegregation plan (30 percent blacks, 5 percent whites reassigned, and a reduction in segregation of -30) and an additional nine percent of its white enrollment with the most extensive plan (60 percent blacks, 25 percent whites reassigned, and a reduction in segregation of -67 percentage points on the index of dissimilarity). City school systems with 35 percent or more black students can expect to lose an additional 8 percent of their white school enrollment with the average desegregation plan and an additional 14 percent with the most extensive plan. Some of the research also suggests that school desegregation continues to have a negative long-term impact on white enrollment declines in large, northern central city school districts. Despite this, the net gain in interracial contact (the proportion white in the average black child's school) for all school systems is substantial. At the end of five years, interracial contact in mandatorily desegregated school districts is still twice as great as it would be if they had not desegregated. Thus, at the simple level of "mixing" blacks with whites, school desegregation is quite successful.

The research findings summarized in Table 4 suggest that the mandatory reassignment of white students to minority schools reduces racial isolation, but increases white protest and white flight. On the other hand, it also facilitates the election of minorities, and may ultimately reduce racial prejudice and residential segregation. The voluntary reassignment of white students reduces white protest and white flight, but it has little effect on racial isolation, and no effect on residential integration. Court-ordered plans increase white protest and white flight only if they include mandatory white reassigmments or the threat of future mandatory white reassignments. Because they are usually mandatory racial balance plans, they tend to accomplish the greatest reductions in racial isolation. Board-ordered plans are typically voluntary plans or black-only mandatory reassignment (by closing black schools

Table 4

The Community Outcomes of Desegregation Strategies

Summary of Findings

Desegregation Strategies	Community Outcomes: Reduces Racial Isolation	Reduces White Protest	Reduces White Flight	Reduces Racial Prejudice	Reduces Residential Segregation	Election of Minorities
Mandatory Reassignment of White Students (two-way busing)	Positive**	Negative**	Negative***	Positive*	Positive*	Positive*
Voluntary Reassignment of White Students (one-way busing)	Negative**	Positive***	Positive**	Indeterm.	Negative*	Indeterm.
Magnet-Mandatory	Positive**	Indeterm.	Indeterm.	Positive*	Positive*	Positive*
Magnet-Only	Negative*	Positive**	Positive**	Indeterm.	Negative*	Indeterm.
Court-Ordered	Positive**	Negative**	Negative**	Positive*	Positive*	Positive*
Board-Ordered[a]	Negative*	Positive*	Positive*	Indeterm.	Negative	Indeterm.
Elementary Desegregation	Positive**	Negative**	Negative**	Positive*	Positive*	Positive*
Limit Busing Distances	Negative*	Positive*	Positive*	Indeterm.	Indeterm.	Indeterm.
Close Oldest and Largest Minority Schools	Positive*	Positive*	Positive**	Indeterm.	Indeterm.	Indeterm.
New Schools in Minority Neighborhoods	Positive*	Indeterm.	Positive*	Indeterm.	Indeterm.	Indeterm.
Phasing-In Mandatory White Reassignments	Indeterm.	Indeterm.	Negative*	Indeterm.	Indeterm.	Indeterm.

[a] Board-ordered plans usually do not involve mandatory white reassignments. The rest of the outcomes are predicated on the lack of mandatory white reassignments.

The Community Outcomes of Desegregation Strategies (Cont.)

	Community Outcomes					
Desegregation Strategies	Reduces Racial Isolation	Reduces White Protest	Reduces White Flight	Reduces Racial Prejudice	Reduces Residential Segregation	Election of Minorities
Metropolitan Plan	Positive***	Indeterm.	Positive**	Indeterm.	Positive*	Indeterm.
Leadership Support for Desegregation	Indeterm.	Indeterm.	Indeterm.	Indeterm.	Indeterm.	Indeterm.
Positive Media Coverage of Desegregation	Positive*	Positive*	Positive*	Indeterm.	Indeterm.	Indeterm.
Strict School Discipline	Indeterm.	Indeterm.	Positive*	Indeterm.	Indeterm.	Indeterm.
Exclude Integrated Neighborhoods from Busing	Positive*	Indeterm.	Indeterm.	Indeterm.	Positive**	Indeterm.

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*Tentative finding based on a few case studies.
**More certain findings based on numerous case studies or national studies.
***Virtually all of the research supports this.

or reassigning from overcrowded black schools). Hence, they rarely accomplish much reduction in racial isolation.

Magnet-mandatory plans effectively reduce racial isolation, and probably facilitate the election of minority officials. The magnet component of these mandatory plans may reduce white protest, white flight, and racial prejudice more effectively than a mandatory plan without magnets, but there is no hard data to support this yet. Magnet-only plans are effective in reducing white protest and white flight, but they are able to reduce racial isolation only in school districts less than 30 percent minority. Moreover, there is no incentive for residential integration in such plans.

Elementary school desegregation is often excluded from mandatory school desegregation because of white parental opposition and the consequent greater white withdrawal when elementary schools are desegregated. However, no desegregation plan where elementary grades are excluded can effectively reduce racial isolation. Moreover, the research suggests that desegregation at early grades holds the greatest promise for improving race relations, increasing minority achievement, and ultimately reducing racial prejudice. While limiting busing distances will reduce white protest and white flight, in many school districts it will undoubtedly also severely limit the amount of racial isolation which can be accomplished.

Because there is greater white flight when white students are reassigned to large minority schools, and less white flight when the schools are new, closing the oldest and largest minority schools would reduce white protest, white flight, and ultimately racial isolation. The research also suggests phasing-in mandatory white reassignments is a mistake, since the more advanced warning white parents are given of impending reassignment, the greater the white flight.

Virtually all the research indicates that mandatory metropolitan plans have less white flight than city-only plans. Utimately, this should reduce racial isolation more effectively (i.e. increase interracial contact) since the reduced white flight and greater white population available in suburbia should produce a higher level of interracial contact than in a city only plan.

Leadership support for school desegregation has no relationship to white flight or to protest, but in part this may be due to the lack of leadership support for mandatory desegregation. Leaders tend to come out in support of desegregation only when it is minimal, and does not involve mandatory white reassignments. Since several studies show the neighborhood environment to be an important influence on white protest, it is possible that leadership support would be effective in reducing protest and flight if it influenced this neighborhood network. Positive media coverage of school desegregation, on the other hand, does influence white flight. The more positive the media coverage of school desegregation in the year before implementation, the less white flight.

The national surveys and the local surveys indicate that the most important concern of parents is discipline in the schools. This is especially true of those residing in desegregated school districts. Strict discipline would reduce white flight, but if it resulted in the suspension and expulsion of minority students, it would reduce racial isolation.

Ultimately the solution to school segregation is residential integration. Mandatory reassignment plans which exclude integrated neighborhoods, and students who move into school neighborhood attendance zones in which they are in the minority, from reassignment provide an incentive for residential integration. As long as the plan is limited to the central city, however, whites will still be able to escape to the suburbs rather than integrate the city neighborhoods.

From a policy standpoint, the costs of school desegregation are not overwhelming in comparison to the possible benefits. So far, mandatory school desegregation is successful in substantially increasing interracial contact, despite significant white flight. Nevertheless, the community surveys indicate that school desegregation has not been unequivocably successful in achieving immediate positive attitudinal changes. It is quite possible that there will not be significant positive attitudinal change until the school desegregation plan is perceived as irrevocable and the element of force is forgotten. It could be argued from this that voluntary plans would be preferable. Unfortunately, voluntary plans do not produce any significant desegregation and thus, if the primary goal is interracial contact, the research to date indicates that students will have to be mandatorily reassigned.

There is need for more research in order to answer some important policy questions:

1. whether a magnet school component in a mandatory desegregation plan reduces white flight, protest, and racial prejudice more effectively than a mandatory plan without magnets; whether magnet schools stigmatize non-magnet schools so that the latter experience greater than expected white flight;
2. whether magnet-only plans result in greater interracial contact than magnet-mandatory plans at the end of a decade;
3. if the voluntary reassignment of white students has a different effect on racial attitudes than the mandatory reassignment of students;
4. whether leadership support for desegregation and an extensive positive media campaign minimize negative outcomes and maximize positive outcomes. In short, the research needs to be less macro-negative, and more micro-positive.

Footnotes

*This study builds on and updates an earlier work "School Desegregation and Community Social Change," Law and Contemporary Problems, 42, Summer 1978, 133-183.

1. This random probability sample stratified by size represents 84% of cities over 250,000, 46% of all cities from 100,000 to 249,999 and 8% of all cities from 50,000 to 99,999. The level of segregation is measured with the index of dissimilarity. The "index of dissimilarity" is used to measure the extent of residential or school segregation. When used to measure school segregation, this index takes as its standard the racial composition of a school district, and then compares the racial composition of the individual school to the racial composition of the school district. In each school (i), suppose there are w whites and n blacks. The entire school district contains W whites and N blacks. The index of dissimilarity is calculated as follows:

$$D = \frac{1}{2} \Sigma \left| \frac{n_i}{N} - \frac{w_i}{W} \right|$$

The computational formula involves adding up the whites in each school at or above the proportion black in the whole district, adding up the blacks in the same schools, dividing each sum by its respective school district population, subtracting these sums from each other, and multiplying the absolute value by 100. The resulting number ranges from 0 to 100 with 0 being perfect racial balance and 100 being perfect segregation.

2. Taeuber and Wilson (1979 a) have begun some preliminary analysis of the impact that various kinds of desegregation actions have had on school segregation within individual school districts. The preliminary analysis suggests the source of pressure to desegregate (HEW, Court, State-Local or Other) had little differential effect on the desegregation of blacks in the South. In the Non-South, the courts were most effective, followed by HEW and then State-Local. First, it should be noted that it is a mistake to collapse state and local initiatives into one category. The history of desegregation, particularly in the North, is characterized by numerous state battles to force local school districts to desegregate. To put them into one category is only a little more reasonable than putting HEW and local into one category. Secondly, most long-term observers of southern desegregation would agree that almost no school desegregation occurred in the South because of local initiative, and very little because of state initiative. If Taeuber and Wilson find little difference between HEW, the courts, and state-local in the South, they have made a major redefinition of what constitutes the source of the order to desegregate, and this definition does not conform to what is used by most other analysts.

3. The equation is:

$$S_{bw} = \frac{\sum_{K} n_{km} p_{kw}}{\sum_{K} n_{km}}$$

where n_{km} is the number of minorities in each school and p_{kw} is the proportion white in each school. These values are multiplied and summed for all schools. This is then divided by the number of minorities in the school district to yield the proportion white in the average minority child's school.

4. See Rossell (1978c) for a more detailed discussion of these phrases and the theoretical assumptions underlying them.

5. The designer of the study and project director is J. Michael Ross, Sociology Department, Boston University.

6. It should be noted at this point that there is a large body of literature extending back through the early 1960's which has been misinterpreted as evidence of the effect of administratively ordered school desegregation on white enrollment losses. These studies are, in fact, analyses of the effect of uncontrolled black population growth in white neighborhoods on the racial composition of the neighborhood and the neighborhood school. Hence, they will not be reviewed here as studies of administratively ordered school desegregation. Some illustrative examples are Wolf (1963), Stinchcombe, McDill, and Walker (1969), Molotch (1969), Wegmann (1975), Levine and Meyer (1977), Levine and Havighurst (1977), and Sly and Pol (1978).

7. Taeuber and Wilson (1979b), find no relationship between the percentage change in white exposure to blacks and private school enrollment increases in central city school districts and districts located in nonmetropolitan areas of the South. (Other districts were excluded from the analysis.) Their findings are invalidated, however, by the use of raw private school enrollment as their dependent variable. One cannot predict raw changes in private school enrollment when districts vary greatly in size and percentage change in exposure is the independent variable. To do so is to say that the same percentage change in white exposure to blacks will cause the same raw increase in private school enrollment in New York City as in Jackson, Mississippi. This is simply incorrect. In addition, their measure--change in white exposure to blacks--suffers from simultaneity bias, as well as possibly producing misleading findings by combining black and white reassignments.

8. There is some logical reason for assuming little white flight to the suburbs will occur among homeowners, since the short term difficulty of selling one's house and getting the best price in such a situation would seem to be great. Nevertheless there could be a greater than normal outflow of renters who would have ordinarily decided to stay in the city and buy houses. This would be a desegregation effect.

9. Moreover, both studies have questionable measures of school desegregation. Clotfelter measures school desegregation as a dummy variable in which any school district in the South was classified as desegregated and any school

district in the North was classified as not desegregated. Aside from the wisdom of using a dummy variable (which Frey also uses), there is the problem that in 1970 the South was still highly segregated--about fifteen percentage points above the North as measured by the index of dissimilarity. Clotfelter used this same dependent variable in another study (see Clotfelter, 1976b).

10. See footnote 1 above for the formula for the index of dissimilarity.

11. Both the Rossell and the Mercer and Scout studies use the change in proportion white as their dependent variable. Other studies, although of neighborhood racial change rather than administratively-ordered school desegregation, using change in proportion white as the dependent variable are Levine and Meyer (1977) and Wegmann (1975) Change in proportion white can sometimes give misleading results (e.g., when the black population is growing and the white population is constant), and hence in most cases it is less preferable as a dependent variable than percentage change in white enrollment (white enrollment in one year subtracted from white enrollment the previous year, and that quantity divided by white enrollment the previous year).

12. Clotfelter finds that whites are more sensitive to change in the proportion black in their school than they are to desegregation per se (i.e., if there are few blacks in a school system, even massive desegregation will have no effect). Such standardized measures as the index of dissimilarity (Farley, 1975; Farley et al., 1979), or the standardized interracial exposure (r_{wb}) (Coleman, 1975b) by themselves cannot determine this. Using these standardized measures, School District A, with 60% black students in every school, is given the same score as School District B, with 20% black students in every school. Thus, these measures indicate nothing about the proportion of blacks and whites in a school other than that it approximates the racial composition of the district, whatever that may be. If, on the other hand, an unstandardized index is used, School District A would have a different score than School District B, reflecting the higher proportion of blacks in each school. The unstandardized index, however, suffers from simultaneity bias when it is used as an independent variable to analyze the effect of desegregation on white flight. That is, as whites leave a school, the proportion of black students goes up and the cause is confused with the effect. Clotfelter has developed a method for eliminating some of this bias. The equation for s_{wb} used by Coleman, is as follows:

$$S_{wb} = \frac{\sum_k n_{kb}\, p_{kw}}{\sum_k n_{kw}}$$

See Coleman (1975b:8). This is the sum of the number of blacks in each school multiplied by the proportion white in the same school. The sum of this calculation for all schools is divided by the total number of whites in the school system. Clotfelter has weighted the measure by an estimate of white enrollment if there had been no white enrollment decline. This can be shown as:

$$S_{wb}^{*} = \frac{1}{w} \sum_{i} W_i \frac{B_i}{h(NW_i + W_i)} = \frac{1}{h} S_{wb}$$

where $h = (NW + W^{*})\ (NW + W)$ and W^{*} is white enrollment the previous year, W is white enrollment the year being analyzed, NW is nonwhite enrollment the year being analyzed. However, it should be noted that results virtually identical to Clotfelter's can be obtained by calculating the interaction effect between a standardized measure of desegregation and proportion black. (See Farley, et al., 1980; Coleman, et al., 1975b; Rossell, 1978a.)

13. Taeuber and Wilson claim that "virtually all of the studies to date on this issue have focused on the largest central city school districts..." (1979b:2). This is not correct. Only Coleman, et al. (1975a, 1975b); Farley (1975); and Farley, et al. (1979) have done so. All of the other studies have included suburban school districts and/or countywide districts. These include Rossell (1975a, 1975b, 1979); Giles, Gatlin and Cataldo (1976b); Armor (1980); Mercer and Scott (1974); etc.

14. When Farley used the school district means model (similar to that used by Taeuber and Wilson), reduction in school segregation (index of dissimilarity) was not significant whereas it was in the other two models, the pooled cross-sectional and the deviation from school district means model.

15. Rossell (1978b) fit a least-square regression line to the pre-desegregation trend to predict the white enrollment loss rate in the year of implementation if desegregation had not occurred. The difference between the predicted white enrollment loss rate without desegregation and the actual rate with desegregation (i.e., the residual white enrollment loss rate) became the dependent variable in the multiple regression analysis.

16. The Office of Civil Rights did not collect enrollment data in 1975 and so Taeuber and Wilson interpolated the 1975 data from 1974 and 1976 data. As a result, any school districts which desegregated in 1975 are likely to have estimated white enrollment which is higher than their true enrollment.

17. One exception to this is Taeuber and Wilson's (1979b) analysis which, although it did not distinguish between black and white reassignments, did examine other aspects of desegregation plans usually ignored by researchers. Because of the problems with their analysis, however, their findings will not be discussed here.

18. Taeuber and Wilson's criticisms of the method by which Rossell (1978a) calculates white and black reassignments show a misunderstanding of the process by which they were calculated, the purpose for using them, and the biases of segregation measures in general. First, in Rossell (1978a:

8) it is pointed out that white reassignments to black schools are correlated -.69 with change in segregation (the index of dissimilarity) and black reassignments to white schools are correlated -.84 with change in segregation. Together they explain most of the variation in change in segregation. (The equation is $\Delta SEG = -4.0 - 74.1\% B.R. - 75.6\% W.R.$. If these reassignment variables explain change in the segregation index so well, they can hardly be "contaminated" in the way Taeuber and Wilson argue. Second, Taeuber and Wilson's criticisms are all double-edged. For example, they note that no school district information was available on which schools were involved in desegregation programs and thus the reassignments may include neighborhood transition. Although this is highly unlikely for whites (they do not move into black neighborhoods voluntarily), it is possible for blacks as long as that change is greater than 1% and results in no more than 50% black or the school district's racial proportions and occurred in the *same* year as a major desegregation plan. The high correlation with change in segregation suggests little of this contaminated the index. The segregation indices, on the other hand, which all other researchers use, not only cannot distinguish between school changes which occur because of residential transition, they cannot distinguish between *district* changes which occur because of residential transition.

Taeuber and Wilson are correct in their criticism that Rossell's (1978a) "reassignments" do not include those who do not show up in the school they are assigned to, whereas school districts reassign on the basis of those enrolled the previous year. What they fail to understand is that the measure they use--white exposure to blacks--is biased in the same way. Taeuber and Wilson calculate white exposure to blacks *not* from school district reassignment plans, but from school data indicating those students who showed up. Indeed, *all* desegregation measures with the exception of Rossell and Ross (1979) are calculated from data which show only the students who showed up, not the total number reassigned. This is because the former is easily obtained since it is collected by OCR, while the latter would have to be obtained from each individual school district and the chances are good that most would either not have it for every year or not release it. Hence, *all* desegregation measures are somewhat deflated by white flight. There is no way to correct for this in the aggregate racial balance measures [the index of dissimilarity and the standardized racial exposure index (R)] but Rossell (1978a) attempted to correct for this deflation by dividing by the present year's enrollment rather than the previous year's enrollment. As Taeuber and Wilson note "This results in the effect of white reassignment on white enrollment changes between T-1 and T+0 being inflated by a factor which is a function of the number of pupils who were reassigned but did not appear in year T+0." (1979:ft. 1). This is exactly what it was supposed to do in order to bring it closer to actual white reassignments.

Taeuber and Wilson are correct when they note that the measure of white reassignments suffers from simultaneity bias, but it can be demonstrated that this bias is small. The index of white exposure to blacks, on the other hand, which they use, was abandoned by Coleman, et al. (1975b) because of its extreme simultaneity bias. Clotfelter (1979) has designed a corrected measure which eliminates some of this bias, but Taeuber and Wilson do not use it.

19. The most recent research, conducted by Becker (1979), analyzing the 1970-76 time period indicates that, in fact, whites are now willing to move into minority neighborhoods even after they reach 30 percent minority, although the rate of in-migration is lower than in all-white neighborhoods.

20. This process of ecological succession does not go on in all types of integrated neighborhoods. Notable exceptions are those neighborhoods such as Hyde Parke in Chicago, Capitol Hill in Washington, D.C., and the South End of Boston where middle class whites move into a predominantly black neighborhood. Nevertheless, my own observation is that such neighborhoods are also unstable, but in the reverse direction from white working class neighborhoods. That is to say, blocks will quite rapidly become all white because the rents and housing prices begin to go up, and the blacks that move out are not replaced by other blacks.

21. This may have greater importance for the long term impact of desegregation than the short term implementation effect.

22. Clotfelter, 1976b, 1979; and Giles, 1978 are exceptions. These studies found a second order interaction effect--a curvilinear, exponential increase in white flight with greater proportions black in school districts or schools. Rossell (1980) looked for a second order interaction effect in Los Angeles, but did not find one. Part of this may be the result of multicollinearity or simply the differences between school districts and regions. Two of the three studies finding an exponential increase in white flight with greater proportions black analyzed only southern school districts (Giles, 1978 and Clotfelter, 1976b) and did not specifically examine school districts undergoing a desegregation plan.

23. The Giles, Cataldo, and Gatlin (1975) study and the Rossell (1978a) study are comparable even though one is of school effects and the other of school district effects since in citywide racial balance plans, the schools to which white students will be reassigned should have roughly the same proportion black as the citywide proportion.

24. This is a tentative finding since there are some statistical problems (multicollinearity) involved in estimating this effect. Interviews with national experts, however, as part of a later research project yield the almost unanimous opinion that desegregation plans should not be phased in.

25. Although average school math and reading scores are highly intercorrelated, math scores are more strongly related to white flight than reading scores in Los Angeles. Neither, however, was significantly related to white flight at either the zero order level, or when other variables were controlled for, in minority schools.

26. In 1977, schools in Los Angeles were ranked according to (1) the percentage of children enrolled who are in families on AFDC welfare (Aid to Families

with Dependent Children), (2) the percentage of children eligible for the federal free lunch program, (3) the 1970 Census median family income for the school attendance zone and, (4) the assessed valuation of single family dwellings. In 1978, the last two criteria were dropped. When the 1980 Census data are available, criterion 3 will be added back in. Title I funds are then dispersed according to these rankings.

27. Taeuber and Wilson (1979b) correctly note that the measure of metropolitan segregation used by Coleman, et al. (1975b), Farley (1979), Clotfelter (1979), and Rossell (1978a) is incomplete since the OCR school survey did not sample all school districts in metropolitan areas in any of its annual surveys, except 1976. Surburban districts were far more likely not to be sampled because of the emphasis on districts with greater minority representation and size.

28. See footnote 3 for the equation.

29. The no desegregation level is predicted from a linear trend analysis of the predesegregation years.

30. The five questions in the Treiman scale are (1) "Do you think white students and Negro students should go to the same schools or separate schools?", (2) "How strongly would you object if a member of your family wanted to bring a Negro friend home to dinner?", (3) "White people have a right to keep Negroes out of their neighborhoods if they want to and Negroes should respect that right.", (4) "Do you think there should be laws against marriages between Negroes and whites?", and (5) "Negroes shouldn't push themselves in where they're not wanted.". See Trieman (1966).

31. See Rossell (1978c; 121) for a more detailed visual description of these trends.

32. Again, it must be emphasized that this could be an artifact of the movement to the suburbs of those most supportive of desegregation.

33. The problem with attitudinal surveys conducted so soon after a violent desegregation implementation is that they may be capturing a boomerang effect caused by the belief that the court order could be overturned as a result of the protest and violence surrounding implementation. This would disappear as soon as it became evident that the court order and the desegregation plan would not be rescinded.

34. In order to complete this analysis, an index of net benefit, such as Sbw, should be calculated for each school district. Although it does not appear to be the case for these school districts, it is possible to have a school district which is racially balanced residentially according to the index of dissimilarity, but has few whites left because of massive white flight. The Sbw index will measure both racial balance and the extent of white contact with blacks (i.e. the proportion white in the average black family's block).

35. In 1970, 91 percent of all blacks in Jefferson County lived inside the city limits. Under Section 8 of the 1974 Housing and Community Development Act, a family with an income no greater than a specified amount related to family size may be eligible for a rental subsidy whereby the federal government pays the difference between 25 percent of the family's income and the fair market rent. The family must find its own housing in the private market, but the dwelling must meet certain physical standards and pass annual inspections.

References

Abney, G. Legislating morality: Attitude change and desegregation in Mississippi. Urban Education, 1976, 11, 333-338.

Aldrich, H. Ecological succession in racially changing neighborhoods: A review of the literature. Urban Affairs Quarterly, 1975, 10, 327-348.

Armor, D. White flight and the future of school desegregation. In W. G. Stephan & J. R. Feagin (Eds.), Desegregation: Past, present, and future. New York: Plenum Press, 1980.

Becker, H. Non-public schools and desegregation: Racial factors and changes in the share of big-city white pupil enrollment going to non-public schools. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Becker, H. Racially integrated neighborhoods: Do white families move in? (Report 287). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, November 1979.

Begley, T. M., & Alker, H. A. Attitudes and participation in anti-busing protest. Paper presented at the annual meeting of the American Sociological Association, San Francisco, August 1978.

Bosco, J., & Robin, S. White flight from court-ordered busing? Urban Education, 1974, 9(4), 87-98.

Bosco, J., & Robin, S. White flight from busing? A second, longer look. Urban Education, 1976, 11, 263-274.

Bullock, C. S., III. Compliance with school desegregation laws: Financial inducements and policy performance. Paper presented at the annual meeting of the American Political Science Association, Chicago, September 1976.

Bullock, C. S., III, & Rodgers, H. R. Coercion to compliance: Southern school districts and school desegregation guidelines. Journal of Politics, 1976, 38, 987-1011.

Cataldo, E. F., Giles, M. W., & Gatlin, D. S. School desegregation policy: Compliance, avoidance, and metropolitan remedy. Lexington, Mass.: D. C. Heath, 1978.

Clotfelter, C. T. The effect of school desegregation on housing policies. Review of Economics and Statistics, 1975, 57, 446-451. (a)

Clotfelter, C. T. Spatial arrangement and the Tiebout hypothesis: The case of school segregation. Southern Economic Journal, 1975, 42(10), 263-271. (b)

Clotfelter, C. T. The Detroit decision and "white flight." Journal of Legal Studies, 1976, 5(1), 99-112. (a)

Clotfelter, C. T. School desegregation, "tipping," and private school enrollment. Journal of Human Resources, 1976, 11, 28-50. (b)

Clotfelter, C. T. Urban school desegregation and declines in white enrollment: A reexamination. Journal of Urban Economics, 1979, 6, 352-370.

Coleman, J. S., Kelly, S. D., & Moore; J. A. Recent trends in school integration. Paper presented at the annual meeting of the American Educational Research Association, Washington, D.C., April 1975. (a)

Coleman, J. S., Kelly, S. D., & Moore, J. A. Trends in school segregation, 1968-1973. Washington, D.C.: The Urban Institute, 1975. (b)

Crain, R. L. Southern schools: An evaluation of the Emergency School Assistance program and of desegregation (Vol. 1). Chicago: National Opinion Research Center, 1973.

Cunningham, G. K. Parents who avoid busing: Attitudes and characteristics. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Cunningham, G. K., & Husk, W. L. A metropolitan desegregation plan: Where the white students went. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

Cusick, P. A., Gerbing, D. W., & Russell, E. L. The effects of school desegregation and other factors on "white flight" from an urban area. Educational Administration Quarterly, 1979, 15, 35-49.

Estabrook, L. S. The effect of desegregation on parents' evaluations of schools (Doctoral dissertation, Boston University, 1980). Dissertation Abstracts International, 1980, 41, 6443A. (University Microfilms No. 80-13, 278)

Farley, R. Racial integration in the public schools, 1967-1972: Assessing the effects of governmental policies. Sociological Focus, 1975, 8, 3-26.

Farley, R., Wurdock, C., & Richards, T. School desegregation and white flight: A resolution of conflicting results. Ann Arbor, Mich.: University of Michigan, Center for Population Studies, 1979.

Fitzgerald, M. R., & Morgan, D. R. School desegregation and white flight: North and South. Integrated Education, 1977, 15(6), 78-81.

Foushee, R., & Hamilton, D. Housing desegregation increases as schools desegregate in Jefferson County. Louisville, Ky.: Kentucky Commission on Human Rights, May 1977.

Frey, W. H. Central city white flight: Racial and nonracial causes. Madison, Wisc.: University of Wisconsin, Institute for Research on Poverty, 1977.

Giles, M. W. White enrollment stability and school desegregation: A two-level analysis. American Sociological Review, 1978, 43, 848-864.

Giles, M. W., Cataldo, E. F., & Gatlin, D. S. White flight and percent Black: The tipping point re-examined. Social Science Quarterly, 1975, 56, 85-92.

Giles, M. W., & Gatlin, D. S. Mass-level compliance with public policy: The case of school desegregation. Journal of Politics, 1980, 42, 722-746.

Giles, M. W., Gatlin, D. S. & Cataldo, E. F. The impact of busing on white flight. Social Science Quarterly, 1974, 55, 493-501.

Giles, M. W., Gatlin, D. S., & Cataldo, E. F. Determinants of resegregation: Compliance/rejection behavior and policy alternatives. Washington, D.C.: National Science Foundation, 1976. (a)

Giles, M. W., Gatlin, D. S., & Cataldo, E. F. Racial and class prejudice: Their relative effects on protests against school desegregation. American Sociological Review, 1976, 41, 280-288. (b)

Greenwood, N. School desegregation--successes, failures, surprises. Los Angeles Times, May 21, 1972, p. 1.

Harris Polls. Press release. July 8, 1976.

Hayes, J. G. Anti-busing protest. Paper presented at the annual meeting of the North Carolina Educational Research Association, Charlotte, November 1977.

Hollenbach is defeated by McConnell. Louisville Courier Journal, November 7, 1977, p. 1.

It's no to Hicks, Kerrigan, Palladino, Galvin plan. The Boston Globe, November 9, 1977.

Jackson, G. Reanalysis of Coleman's recent trends in school integration. Educational Researcher, 1975, 10(4), 21-25. (a)

Kentucky Commission on Human Rights. Six ways to avoid busing. Louisville, Ky.: Kentucky Commission on Human Rights, 1975.

Kentucky Commission on Human Rights. Blacks moving to suburban apartments. Louisville, Ky.: Kentucky Commission on Human Rights, 1980. (a)

Kentucky Commission on Human Rights. Housing and school desegregation increased by section 8 moves: Under public housing program most black familites chose Jefferson County suburbs (Staff Report 80-1). Louisville, Ky.: Kentucky Commission on Human Rights, 1980. (b)

Kirby, D., Harris, T., & Crain, R. L. Political strategies in northern school desegregation. Lexington, Mass.: D. C. Heath, 1973.

Larson, J. C. Takoma Park magnet school evaluation. Rockville, Md.: Montgomery County Public Schools, 1980.

Levine, D. U., & Meyer, J. K. Desegregation and white enrollment decline in a big city school district. In D. U. Levine & R. J. Havighurst, The future of big city schools. Berkeley, Calif.: McCutchan, 1977.

Lezotte, L. W. Voter behavior as an expression of community attitudes toward desegregation. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1976.

Lord, D. J. School busing and white abandonment of public schools. Southeastern Geographer, 1975, 15, 81-92.

Lord, D. J. School desegregation policy and intra-school district migration. Social Science Quarterly, 1977, 57, 784-796.

Lord, D. J., & Catau, J. C. School desegregation, busing, and suburban migration. Urban Education, 1976, 11, 275-294.

Maniloff, H. Community attitudes toward a desegregated school system. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Massachusetts Research Center. Education and enrollments: Boston during Phase II. Boston: Massachusetts Research Center, 1974.

McConahay, J. B., & Hawley, W. D. Reactions to busing in Louisville: Summary of adult opinions in 1976 and 1977. Durham, N.C.: Duke University, Institute of Policy Sciences and Public Affairs, 1978.

Mercer, J. R., & Scout, T. H. The relationship between school desegregation and changes in the racial composition of California School Districts, 1966-73. Riverside, Calif.: University of California, 1974.

Meyerson, M., & Banfield, E. Politics, planning, and the public interest. New York: Free Press of Glencoe, 1955.

Molotch, H. Racial change in a stable community. American Journal of Sociology, 1969, 75, 226-238.

Munford, L. White flight from desegregation in Mississippi. Integrated Education, 1973, 11(3), 12-26.

Noblit, G. W., & Collins, T. W. School flight and social policy: Desegregation and resegregation in the Memphis city schools. The Urban Review, 1978, 10(3), 203-212.

Orfield, G. Report to the court, Crawford v. Los Angeles, Los Angeles, Calif., 1978.

Pearce, D. Breaking down barriers: New evidence on the impact of metropolitan school desegregation on housing patterns. Washington, D.C.: National Institute of Education, November 1980.

Pride, R. A. Patterns of white flight: 1971-1979. Nashville, Tenn.: Vanderbilt University, 1980.

Pride, R. A., & Woodard, J. D. Busing plans, media agenda, and white flight. Paper presented at the annual meeting of the Southwestern Political Science Association, Houston, April 1978.

Richard, R., Knox, R., & Oliphant, T. The first year. Boston Globe, May 25, 1975, A1-24.

Roberts, B. F. Declining white enrollments and desegregation in central city public schools: Their immediate and long-term relationship (Honor's thesis, Harvard University, Department of Economics, 1978).

Ross, J. M. Resistance to racial change in the urban North: 1962-1968 (Doctoral dissertation, Harvard University, 1973).

Rossell, C. H. The political and social impact of school desegregation policy: A preliminary report. Paper presented at the annual meeting of the American Political Science Association, San Francisco, September 1975. (a)

Rossell, C. H. School desegregation and white flight. Political Science Quarterly, 1975, 90, 675-695. (b)

Rossell, C. H. Assessing the unintended impacts of public policy: School desegregation and resegregation. Washington, D.C.: National Institute of Education, 1978. (a)

Rossell, C. H. The effect of community leadership and the mass media on public behavior. Theory Into Practice, 1978, 8, 131-139. (b)

Rossell, C. H. School desegregation and community social change. Law and Contemporary Problems, 1978, 42(3), 133-183. (c)

Rossell, C. H. Magnet schools as a desegregation tool: The importance of contextual factors in explaining their success. Urban Education, 1979, 14, 303-320.

Rossell, C. H. Is it the distance or the Blacks? Boston: Boston University, 1980.

Rossell, C. H., & Ross, J. M. The long-term effect of court-ordered desegregation on student enrollment in central city public school systems: The case of Boston, 1974-1979 (Report prepared for the Boston School Department). Unpublished manuscript, Boston University, 1979.

Serow, R. C., & Solomon, D. Parents' attitudes toward desegregation: The proximity hypothesis. Phi Delta Kappan, 1979, 60(10), 752-753.

Sheatsley, P. White attitudes towards the Negro. Daedlaus, 1966, 95, 217-238.

Slawski, E. J. Pontiac parents, for busing or integration? Education and Urban Society, 1976, 8, 477-498.

Sly, D. F., & Pol, L. G. The demographic context of school segregation and desegregation. Social Forces, 1978, 56, 1072-1085.

Sobol, M. J., & Beck, W. W. Perceptions of black parents in an undesegregated subdistrict of an integrated school system. Urban Education, 1978, 12, 411-422.

Stinchcombe, A., McDill, M., & Walker, D. Is there a racial tipping point in changing schools? Journal of Social Issues, 1969, 25, 127-136.

Taeuber, K. E., & Wilson, F. D. The demographic impact of school desegregation policy. Madison, Wisc.: University of Wisconsin, Institute for Research on Poverty, 1978.

Taeuber, K. E., & Wilson, F. D. Analysis of trends in school segregation. Madison, Wisc.: University of Wisconsin, Institute for Research on Poverty, October 1979. (a)

Taeuber, K. E., & Wilson, F. D. An analysis of the impact of school desegregation policies on white public and nonpublic school enrollment. Madison, Wisc.: University of Wisconsin, Institute for Research on Poverty, November 1979. (b)

Taylor, D. G. Public relations to a court order for metropolitan school desegregation: Detroit 1972. Madison, Wisc.: University of Wisconsin, Institute for Research on Poverty, 1978.

Taylor, D. G., Sheatsley, P., & Greely, A. Periods of change in American racial attitudes. Scientific American, 1978, 238(6), 42-49.

Taylor, D. G., & Stinchcombe, A. The Boston school desegregation controversy. Chicago: National Opinion Research Center, 1977.

U. S. Bureau of the Census. Current population reports, school enrollment: Social and economic characteristics of students, October 1975 (Series P-20, No. 294). Washington, D.C.: U.S. Government Printing Office, 1976.

U. S. Commission on Civil Rights. School desegregation in ten communities. Washington, D.C.: U. S. Government Printing Office, 1973.

Weatherford, M. S. The politics of school busing: Contextual effects and community polarization. Journal of Politics, 1980, 42, 747-765.

Wegmann, R. G. Neighborhood and schools in racial transition. Growth and Change, 1975, 6, 3-8.

Wolf, E. P. The tipping point in racially changing neighborhoods. American Institute of Planners Journal, 1963, 29, 212-217.

CHAPTER II

DESEGREGATION SCHOOL PRACTICES AND STUDENT RACE RELATIONS OUTCOMES

Janet Ward Schofield

Introduction

The goal of this paper is to summarize what the empirical literature suggests about the impact of various desegregation strategies on the development of positive social relations between black and white children. The paper focuses on black-white relations in spite of the fact that Hispanic children are an increasingly important minority group in American schools because there is so little research on factors which influence the development of social relations between Hispanics and other racial and ethnic groups.

Although the Brown v. Board of Education decision which laid the basis for the desegregation of American schools was based on the constitutional principal of equal protection (Read, 1975; Wisdom, 1975), many social scientists and educators were quick to point out the possible beneficial effects of desegregation. In particular, it has frequently been argued that school desegregation can lead both to increased academic achievement on the part of minority group members and to improved relations between minority and majority group members. In the years since the Brown decision, a tremendous amount of research has been conducted to assess the impact of desegregation on the academic performance of both white and black children (Crain and Mahard, 1978; Stephan, 1978; St. John, 1975; Weinberg, 1977). However, much less attention has been given to the social experiences of children in interracial schools and the impact of these experiences on intergroup attitudes and behavior.

Perhaps one reason why so little attention has been paid to the special learning that occurs in interracial schools is that for most parties closely involved with the schools traditional academic achievement is a matter of infinitely higher priority. The performance of a school district is usually judged by the academic achievement of its pupils. The proportion of students going on to college and the way local students score on nationally normed tests of academic aptitude and achievement are typical of the sorts of indicators normally used to judge how well educational institutions are performing. The widespread resistance to desegregation on the part of whites clearly suggests that they do not give the opportunity for interracial contact in schools high priority. Similarly, many blacks give low priority to increased opportunity for friendship with whites (Clark, 1973; Goldman, 1970).

Although many of the parties concerned with desegregated schools tend to be relatively uninterested in how interracial schooling affects intergroup relations, there are some compelling arguments in favor of giving more thought to the matter. First, the fact is that social learning occurs whether or not it is planned. Hence, an interracial school cannot choose to have no effect on intergroup relations. It can only choose whether the effect will be planned or unplanned. Even a laissez-faire policy concerning intergroup relations conveys a message -- the message that either school authorities see no serious problem with relations as they have developed or they do not feel that the nature of intergroup relations is a legitimate concern for an educational institution. So those who argue that schools should not attempt to influence intergroup relations miss the fundamental fact that whether or not the consciously try to influence such relations, schools are extremely likely to do so in one way or another.

Because of the pervasive residential segregation in our society, students frequently have their first relatively intimate and extended interracial experiences in schools. Hence, whether racial hostility and stereotyping grow or diminish may be critically influenced by the particular experiences students have there. While there may still be considerable argument about the desirability of close interracial ties, there is a growing awareness of the societal costs of intergroup hostility and stereotyping. It is clear that under many conditions interracial contact can lead to increased intergroup hostility. Hence, unless interracial schools are carefully planned there is the very real possibility that they will exacerbate the very social tensions and hostilities that it was initially hoped they would diminish.

Recent years have seen a number of trends which all suggest the importance of turning from an almost exclusive concentration on the academic outcomes of schooling and focusing at least some attention on non-academic outcomes such as intergroup relations. First, the long held assumption that academic achievement was the major determinant of occupational success has been seriously questioned. Hence, numerous investigators have begun to study non-academic personal characteristics such as interpersonal competence (White, 1968) or system awareness (Tomlinson and TenHouten, 1972) which appear to be related to occupational success and which may well be influenced by the schooling one receives. The ability to work effectively with out-group members would seem to be an increasingly important skill in a pluralistic society which is striving to overcome a long history of discrimination in education and employment.

Second, intense concern over the flare up of youth-related social problems such as drug use, and politically motivated violence in the late 1960's focused public attention on the vital importance of individuals' attitudes and attributes for society as a whole. The fact that drug use, dropping out of "the system," and ideologies sanctioning violence were more prevalent on the elite than the average college campuses served to underline the fact that high academic achievement is not necessarily synonymous from society's point of view with desirable individual development.

Third, Jencks et al. (1972) as well as others have suggested that more attention should be paid to structuring schools so that they are reasonably pleasurable environments for students. This viewpoint emphasizes that in addition to being agencies which prepare students for future roles, schools are also the environments in which many people spend nearly one third of their waking hours for a significant portion of their lives. This line of argument suggests that even if positive or negative interracial experiences do not cause change in interracial behaviors and attitudes outside the school situation, positive relationships within the school setting may be of some value.

Finally, there is the possibility that the social relations between students in interracial schools may effect their academic achievement (Pettigrew, 1967; Katz, 1964; Rosenberg and Simmons, 1971; U.S. Commission on Civil Rights, 1967). For example, Katz's (1964) work suggests that the academic performance of blacks may be markedly impaired in biracial situations which pose a serious social threat. Katz aruges that hostility or even indifference from whites is likely to distract black children from their work and to create anxiety which interferes with efficient learning. He also argues that social acceptance of black children by white children will tend to increase black children's academic motivation if the whites are performing better than the blacks as is often the case. There are studies which suggest that interracial social acceptance does not necessarily lead to improved academic performance by blacks (Maruyama and Miller, 1980). Yet, it seems reasonable to argue that a very negative interracial atmosphere might well lead to a decline in achievement for white and black students alike. A recent National Institute of Education (1978) sponsored study on violence in American schools found that around 4% of a large sample of American high school students reported having stayed home from school in the previous month because they were afraid. The study suggests that, in general, desegregated schools have only slightly higher levels of violence than other schools. Nonetheless, if the interracial atmosphere were particularly tense in a school, the students might well respond by staying home just as they respond to other sources of fear. Such absenteeism, if prolonged and widespread, could hardly help but have an adverse impact on students' achievement.

Although the impact of desegregation on intergroup relations is far less researched than the impact of desegregation on academic achievement, there is a sizeable body of research on this and closely related topics. This research can be roughly grouped into three basic categories. First, there are numerous studies which do things like (a) compare the attitude of students in a segregated school to those of students in a similar desegregated school, or (b) look at changes in student attitudes and behavior associated with the length of time children have been desegregated. Such studies generally give relatively little information about the nature of the schools studied. Rather, they tend to talk in terms of assessing "the effect" of desegregation, frequently assuming implicitly that desegregation is an independent variable which has been operationalized similarly in a wide variety of circumstances. Such studies often contain analyses which examine the impact of student background variables like race or sex on reactions to desegregation. However, they generally do not directly address the impact of specific policies or programs on students. Thus, for example, these studies are unlikely to try to relate characteristics of the schools to student outcomes.

A second type of research in this area investigates the impact of particular, very narrowly defined, innovations on intergroup relations within desegregated schools. This type of research is generally experimental and allows one to assess with some confidence the result of implementing the specific innovation being studied. The most thoroughly researched technique is the use of small interracial cooperative learning teams. However, there are also occasional studies of other innovations such as the use of a multiracial curriculum.

The third basic type of research of relevance to the topic at hand are the large correlational studies which attempt to relate a whole battery of school policies and practices to particular outcomes. Perhaps the most widely known of these studies is Forehand, Ragosta and Rock (1976). However, there are a number of other studies of this type such as Slavin and Madden's (1979) recent paper. In addition, there are a few other correlational studies, like Serow and Solomon (1979), which focus on assessing the impact of a much smaller number of practices on various aspects of intergroup relations.

Because the focus of the first kind of research described above is so different from that of the other two types of research, this paper will examine studies looking at "the effect" of desegregation before turning to a review of research which assesses the impact of particular school policies or practices.

Research on "The Effect" of Desegregation

The purpose of this review is not to argue that desegregation "works" or "doesn't work." Rather, it is to see what we know about what techniques "work" in promoting positive relations between students in desegregated schools. One might then ask, "Why bother to look at all at studies which focus on assessing the effect of desegregation, rather than immediately turning to research which explores the impact of varying types of desegregation and different school practices?" The answer to this question is two-fold. First, although these studies were generally not constructed to look at different desegregation strategies, they constitute the largest set of studies potentially relevant to the topic being explored. Thus, to reject them out of hand without seeing what, if anything, can be learned from them seems unwise. Second, even if these studies do not themselves contain comparisons of direct relevance to this paper, there is always the possibility that a meta-analysis of the literature will yield review-generated comparisons of interest. In discussing meta-analysis of research domains, Cooper (1980) distinguishes between study-generated comparisons. The former, study-generated comparisons, emerge when a specific study looks at the impact of a particular variable. The latter, review-generated comparisons, emerge when a body of studies is analyzed and the results of studies having something in common are compared to the results of studies which differ in a specified way. For example, one could take 20 studies of "the effect" of desegregation, group them by the age of the children studied, and then ask whether the studies performed with elementary school children are more likely to yield positive results than those done with older children. This could be done in spite of the fact that none of the individual studies looked at the impact of age on student outcomes.

Thus, it seemed wise to start this review by looking to see what could be learned from the set of studies which deal with the effect of desegregation on intergroup attitudes and behavior. Given this decision, the first question to arise is, "What are the relevant studies?" Fortunately, in the past decade or so there have been eight separate reviews of the effect of desegregation on intergroup attitudes and behavior (Carithers, 1970; Cohen, 1975; McConahay, 1975; 1979; St. John, 1975; Schofield, 1978; Slavin and Madden, 1979).[2] While one of these reviews is quite old, the rest have all been published within the last five years. A number of them are no more than a year or two old. Thus, rather than repeating the searches of previous reviewers, I decided to use the reference sections of these eight reviews as the basis for the core set of studies to be explored.

The procedure used to decide which of the papers cited in the eight reviews would be included in the "core" literature for this review can be outlined as follows:

1. All citations in the reviews which related even tangentially to desegregation and race relations were part of the potential core.[3] These papers were grouped into several categories:
    a. References published in 1960 or earlier.
    b. Unpublished papers.
    c. Doctoral dissertations.
    d. Published papers, books and large technical reports.

   All items in categories (a) and (b) were automatically eliminated from consideration. The early papers were eliminated since there have been such major changes in so many aspects of race relations in the last twenty years that the relevance of these studies to the present day situation seemed quite uncertain. Most of the unpublished papers were not given further consideration for two reasons. First, many of these studies were difficult, if not impossible, to obtain within the time constraints of this project. Second, there appears, in general, to be a noticeable difference in quality between papers which are published and those which remain unpublished long after they were first written. Only two of the unpublished papers cited in the reviews were less than four years old. These two papers were obtained and included in the potential pool of studies.

2. Doctoral dissertations, published papers, books, large technical reports and recent unpublished papers were included in the potential core literature. These studies were carefully read and were eliminated from further consideration in this section of the review if they were:
    a. review articles rather than research reports (coded R for review);
    b. more appropriately considered in another section of this review because they focused on specific techniques used to promote positive race relations or reported the results of large correlational studies of various techniques (coded S for specific techniques or C for large scale correlational study).
    c. conducted with children of pre-school age or with college students or adults (coded A for age);
    d. primarily of methodological rather than substantive

interest (coded MF for methodological focus);

e. studies of racial attitudes which were tangential to the focus of the present review for a variety of reasons, such as failure to compare the attitudes of segregated and desegregated students (coded I for irrelevant);

f. seriously flawed methodologically for the purposes of this review (coded M for methodological problem. It should be emphasized that placement in this category does not imply that a study is so methodologically flawed that it is of no interest for any purpose. On the contrary, some of the studies coded "M" contain quite useful and interesting information. However, the structure of these studies is methodologically flawed for exploration of the impact of desegregation on intergroup attitudes and behavior); or

g. duplicate reports of research projects reported more fully elsewhere. In such cases, the more complete document was used even it if was unpublished (coded E for elsewhere).

The potentially relevant studies cited in the reviews are all listed in Appendix 1 with an indication of why each one which was eliminated was not included in this section of the review. More detailed information on reasons behind the elimination of published papers, books, large technical reports and recent unpublished papers is presented in Table 1. A list of all studies which survived the elimination procedures discussed above,

TABLE 1

Categorization of the Potentially Relevant Published Studies, Large Technical Reports, Dissertations and Recent Unpublished Studies Cited in the Eight Recent Reviews of the Literature of Desegregation and Race Relations

Type of Study[a]	References
1. Reviews of the literature	Amir (1969) Cook (1979)
2. Studies of specific experimental techniques on school practices	
a. Interaction disability (including related theory)	Berger, Cohen & Zeldrich (1966) Cohen (1972) Cohen, Lockhead, & Lockman (1976) Cohen & Roper (1973)
b. Cooperative team learning	Aronson et al. (1979) DeVries, Edwards & Slavin (1978) Johnson & Johnson (unpublished, 1977) Slavin (unpublished, 1978)
c. Other practices	Koslin, Koslin, Pargament & Waxman (1972) Schofield & Sagar (1977)
3. Studies of preschool or college age students	Crooks (1976) Porter (1971)
4. Primarily methodological studies	Williams, Best & Boswell (1975)

Type of Study	References
5. Large-scale correlational research and government reports	Forehand, Ragosta & Rock (1976) NORC (1973) U.S. Commission on Civil Rights (1967) Wellisch, Marcus, MacQueen & Duck (1976)
6. Otherwise irrelevant to present study	
a. Studies of self-concept, prejudice, the structure of racial attitudes, satisfaction with and participation in school activities, etc.	Erlanger & Winsborough (1976) Garth (1963) Kurokawa (1971) Patterson & Smits (1972) Stephan (1977) Taylor (1967) Trubowitz (1969) Walker (1968) Williams & Venditti (1969a) Williams & Venditti (1969b)
b. Studies of the amount or occurrence of interracial friendship or contact which provide neither a valid pre/post comparison nor a clearly segregated control group[b]	Bradley (1964) Bullock & Braxton (1973) Herman (1967) Jansen & Gallagher (1966) Kaplan & Matkom (1967) Patchen, Davidson, Hofmann & Brown (1977) St. John (1974) St. John & Lewis (1975) Smith (1969) Useem (1971)
c. Studies which look at race relations, peer status, etc. as the independent variable predicting other outcomes	Lewis (1971) Lewis & St. John (1974)

Type of Study	References
7. Serious methodological problems for purpose of assessing the impact of desegregation or different desegregation strategies on race relations	Dentler & Elkins (1967) Evans (1969) Cottlieb & Ten Houten (1965) Schmuck & Luzki (1969) Useem (1971) Wade & Wilson (1971) Willie & Beker (1973)
8. Duplicates material included elsewhere	Herman (1970) Singer (1967) Useem (1976, 1972)
9. Included as the core literature for analysis	Armor (1972) Barber (1968) Green & Gerard (1974) Gerard, Jackson & Conolley (1975) Lachat (1972) Lombardi (1962) McWhirt (1967) Seidner (1971) Shaw (1973) Silverman & Shaw (1973) Singer (1966) Webster (1961)

[a] Many studies fell in more than one category. For example, a study of pre-school children (category 3) might also have serious methodological problems (category 7). Also, some studies were eliminated because of a combination of several weaknesses rather than an overwhelming weakness on one dimension. In both cases, such studies were rather arbitrarily placed in the category which best captured the major reason for their elimination.

[b] There is some overlap between this category and category 7. However, many of the studies in this category do not even purport to look at the effect of desegregation, whereas those in category 7 generally do.

along with some summary information on the studies' characteristics and results, appears in Table 2.

In order to discover material not available at the time of even the most recent reviews, a search of Psychology Abstracts, Sociology Abstracts and ERIC was conducted for the years 1978 and 1979. Many of the citations culled from these sources overlapped with those obtained from the most recent reviews. However, a list of potentially relevant materials not covered in the earlier reviews appears as Appendix 2. Since this search was specifically undertaken to find research on the effectiveness of various desegregation strategies as well as to discover any very recent studies examining "the effect" of desegregation, many of these papers are utilized in later sections of this paper rather than immediately below. Studies in Appendix 2 which were not included in this section of the review were coded to show the reason for their elimination. The codes used in Appendix 2 are identical to those described earlier.

One striking feature of the studies, located both through previous reviews of the literature and through the abstract searches, was how few of them contained specific information on the impact of desegregation on Hispanic students. I was able to locate only one or two studies which looked at "the effect" of desegregation on intergroup attitudes in schools including Hispanics. The major available source of data on this topic is a study performed in Riverside, California (Gerard, Jackson & Conolley, 1975). A few other papers touch on this question or related ones such as whether the structure of Hispanic children's intergroup attitudes is similar to that of blacks and whites (Green & Gerard, 1974; Jacobson, 1977; Stephan, 1977). Such studies are, however, few and far between.

TABLE 2

SUMMARY OF CORE STUDY CHARACTERISTICS AND OUTCOMES

Study	First Data Collection (approx.)	Grades	Type of Desegregation	Community or Original Response	Time Since Desegregation (end of study)	Design			Independent Variable	Dependent Variable	Outcome[c]		
						Pre-Test	Control Group	Time Trend			Blacks	Whites	Combined
Armor (1972)	1968	7-12	voluntary for blacks (token)	?	1 - 5 years		X	X	current deseg./seg.	attitude toward integ.	-		
Armor (1972)	1969	7-12	voluntary for blacks (token)	?	1 - 5 years			X	length of time deseg.	peer interaction	-		
Barber (1968)	1967	8	voluntary for blacks (token)	-	first year		X		current deseg./seg.	racial attitude		-	
Crain & Wisman (1972)	1966	1-12	neighborhood	?	long-term		(X)		prior deseg./seg.	peer interaction	+		
Gerard & Miller (1975)	1966	1-6	reassignment of blacks	mixed	long-term	X	X	X	current deseg./seg.	sociometric status	(-)	0	
Green & Gerard (1974)	1966	1-6	reassignment of blacks	mixed	first year	X	X		current deseg./seg.	racial attitude	(-)	0	
Koslin, Amarel & Ames (1969)	1968	1, 2	neighborhood	?	long-term		(X)		current deseg./seg.	racial attitude	+	(+)	
Lachat (1972)	1971	12	neighborhood	0	long-term		(X)		current deseg./seg.	racial attitude		-	
Lachat (1972)	1971	12	neighborhood	+	long-term		(X)		current deseg./seg.	racial attitude		+	
Lombardi (1962)	1958	9, 10	voluntary for blacks (token)	0	first year	X	(X)		current deseg./neg.	racial attitude		0	
McWhirt (1967)	1965	10	? not specified	?	first year		X	X	current deseg./seg.	racial attitude	0	0	

Study	First Data Collection (approx.)	Grades	Type of Desegregation	Community or Original Response	Time Since Desegregation (end of study)	Design			Independent Variable	Dependent Variable	Outcome[c]		
						Pre-Test	Control Group	Time Trend			Blacks	Whites	Combined
Schofield (1979)	1976	8	voluntary for all	+	1 - 5 years		X	X	prior deseg./seg.	peer interaction			(+)
Seidner (1971)	1970	3	voluntary for blacks	?			(X)		current deseg./seg.	peer interaction	0	0	
Shaw (1973)	1972	4-6	reassignment of blacks	0	first year			X	length of time deseg.	sociometric choice	0	0	
Shaw (1973)	1972	4-6	reassignment of blacks	0	first year			X	length of time deseg.	sociometric rejection	(+)	-	
Silverman & Shaw (1973)	1971	7-12	reassignment of blacks	-	first year			X	length of time deseg.	peer interaction			0
Silverman & Shaw (1973)	1971	7-12	reassignment of blacks	-	first year			X	length of time deseg.	attitude toward deseg.			(+)
Singer (1966)	1964	5	neighborhood	?	long-term		(X)		current deseg./seg.	racial attitude	(+)	(+)	
Webster (1961)	1959	7	reassignment of blacks	?	first year	X	(X)		current deseg./seg.	racial attitude	+	-	

[a] "0" indicates very low key or neutral response; "?" indicates no interaction in

[b] Parenthesis indicate questionable appropriateness of control group

[c] Parenthesis indicate non-significant trend or mixed

Analysis of the Core Literature on "The Effect" of Desegregation

The original bibliography based on the earlier reviews of the literature included over 100 references. However, this large number of studies shrank rapidly as items were eliminated for the reasons discussed above. Substantial shrinkage was not surprising since in originally compiling the potential core every study of even marginal relevance was listed. However, the rather small number of studies remaining after this elimination process is rather surprising. In fact, after the process of elimination described above, only eight published studies and six dissertations remained in the core literature for assessing the effect of desegregation on intergroup relations. One study published since the most recent reviews was added to this core, bringing the total to fifteen.

Careful examination of these studies suggested that it would be very difficult, if not impossible, to try to perform any sort of formal meta-analysis. The reasons for this are many. First, these studies supply less information than one might expect. Some of the studies look only at changes in blacks' attitudes and behavior, whereas others look exclusively at whites. Still others use measures such as seating patterns which allow one to assess overall changes in intergroup relations but yield little or no information about which group of students is responsible for the changes which occur. Thus, the number of useful studies dwindles still further from the core of fifteen as one tries to assess outcomes for different groups of students. Yet, looking separately at outcomes for whites and blacks is necessary, since a number of the studies which do examine outcomes for both groups of students find quite different outcomes for these two groups of students.

In addition to the fact that there are very few relevant studies available for a meta-analysis, the studies which do exist rarely describe the schools in which they were conducted or the context in which those schools functioned in sufficient detail to make review-generated comparisons of "types of desegregation" possible. For example, almost half of the studies give no indication of whether there were substantial differences in average levels of academic achievement or of socioeconomic status between the black and white students. Similarly, over half make no mention of community reaction to desegregation. Also, fewer than half discuss the presence or absence of any positive steps designed to make desegregation proceed smoothly. Most studies do give some information on whether the desegregation was voluntary, court-ordered, etc. It is of interest that more than one-third of the cases studied involve voluntary desegregation plans whereas only two studies, both conducted in the same southern school district, looked at court-ordered desegregation.

The temptation to make some comparisons between schools desegregated voluntarily and otherwise is lessened by two factors. First, unless the impact of any one variable such as the presence or absence of a court-order is of virtually overwhelming importance, it may well be hidden by differences in other aspects of the schools for which the meta-analysis has been unable to control because of lack of information or "empty cells" in the comparison design. Second, approximately half of the studies, including both of the studies of court-ordered desegregation, were conducted during the first year of desegregation and a number of these were conducted less than four months after desegregation. There is good reason to believe that conditions during the first year of desegregation are often quite different from those in later years. In some cases, schools make special efforts to make desegregation work which are later dropped when the initial crisis atmosphere abates. In other cases, protest and disruption are very high initially and then diminish over time. In neither case would one expect the changes in students' reactions to each other during the first year to be good predictors of later changes.

Another factor which seriously impedes a useful meta-analysis of these studies is the great variation in the dependent variable from study to study. Some studies have focused on attitudes toward desegregation, others have examined sociometric choices. Even within these groupings, the actual study designs and dependent variables are so diverse that cumulation is difficult. Take, for example, the studies using sociometric techniques. Gerard, Jackson and Conolley (1975) focused on changes in minority childrens' status as friends, work partners and members of a ball team as they moved from segregated to racially mixed classrooms. In contrast, Shaw (1973) compared observed rates of sociometric choice for outgroup members to expect rates based on their proportion in the grade being studied. A very popular child in a segregated school who loses status in moving from that school to a desegregated school (Gerard et al.'s "negative" outcomes) could nevertheless be chosen with somewhat greater than the mathematically expected frequency (Shaw's "positive" outcome) in his or her new school. Also, there is reason to believe that sociometric choice and sociometric rejection of outgroup members may not be strongly negatively correlated, but rather may be sufficiently independent to make grouping them together for purposes of a meta-analysis unwise. For example, the work of Patchen and his colleagues suggests that, contrary to what one might expect, positive and negative interracial attitudes and behaviors are not opposite ends on a continuum. Indeed, the amount of friendly and unfriendly cross-race contact reported by students participating in this research were typically independent of one another (Patchen, Davidson, Hofmann and Brown, 1973). Also, factor analyses of black and white high students' perceptions of the friendliness of outgroup members toward ingroup members were correlated quite weakly with perceptions of the unfriendliness of those same outgroup members (Patchen, Hofmann & Davidson, 1976).

Unfortunately, one important thing that the dependent variables utilized in many of these studies have in common is the hidden assumption that intergroup relations cannot improve except at the expense of intragroup relations. The dependent measures used in almost two-thirds of the studies listed in Table 2 are structured so that improvement in black/white relations can only occur if students begin to choose outgroup members rather than ingroup members. To some extent, this assumption reflects the nature of social reality. For example, generally a student can only sit next to a few others at lunch. If black students begin to sit next to whites more frequently than before they are also likely to think that, in general, attitudes towards outgroup members can only improve if ingroup members are abandoned or less valued than previously. It seems perfectly reasonable to argue that whites might become more accepting of blacks and at the same time not change their attitudes towards other whites or vice-versa. Yet, the dependent measures used in the majority of the studies listed here are not structured to reflect accurately this type of change. Rather, they are typically "zero-sum" measures which pick up only the changes in outgroup acceptance which occur at the expense of ingroup members. This fact does not, of course, automatically invalidate these studies; but, it does suggest great care in generalizing from them.

Finally, these studies also vary markedly in methodological rigor. In compiling this list, I was careful to include any studies from the original bibliography which met some quite minimal standards of methodological rigor and direct relevance to the issue under discussion. Any formal meta-analysis would need to develop a weighting procedure to discount the weaker studies. Such a procedure would be possible to develop, but with so few studies to begin with, as well as the other problems outlined above, it hardly seems worthwhile. The extent to which more rigorous methodological standards for inclusion in any meta-analysis would cut down on the number of studies available for inclusion is suggested by McConahay (1979, p. 1) who writes, "In my own review of over 50 published and unpublished studies done between 1960 and 1978, I did not find even one true experiment and only four of the quasi-experimental studies had enough methodological rigor to make them worth reporting in any detail" (Gerard and Miller, 1975; Schofield & Sagar, 1977; Shaw, 1973; Silverman and Shaw, 1973).

In summary, the literature designed to see whether desegregation *per se* leads to changes in race relations has little to contribute to our understanding of what specific desegregation strategies are likely to produce improved race relations. The fact that there are a relatively small number of studies combined with the lack of information about the types of schools studies and the wide variety of rather different dependent variables employed makes any formal meta-analysis aimed at assessing different desegregation strategies virtually impossible.

Studies Linking School Policies and Practices to Student Race Relations Outcomes

A broad search of the literature was performed to locate research relevant to this review. Many such studies were culled from the bibliographies of the eight reviews cited earlier (see Table 1). Others were located through the searches of *Psychological Abstracts*, *Sociological Abstracts* and the ERIC system mentioned earlier in this paper. Finally, others too recent to be located in the sources just mentioned were obtained through searches of the very recent editions of journals and the programs of the national meetings of the American Psychological Association, the American Sociological Association and the American Educational Research Association.

The studies to be reviewed here include (a) experimental studies looking at the impact of one or a few specific techniques designed to affect race relations; (b) "shot-gun" correlational studies which search for the links between a wide array of dependent and independent variables; and (c) smaller correlational studies which, like the experimental studies, tend to look at the impact of a few specific strategies on race relations outcomes. It is crucial for the reader to keep in mind the uncertainty one encounters in making inferences about the direction of causality in correlational research. Whereas experimental research, if well executed, leaves one feeling relatively confident about the causal direction of empirical relationships, correlational research of the type found in the studies reviewed generally does not. Thus, in interpreting the meaning of the correlational studies the reader must constantly make judgments about the extent to which the causal connections suggested by the researcher are more likely than alternative connections.

Unfortunately, there are even fewer carefully performed studies which allow statistical assessment of the effectiveness of school practices in promoting positive race relations than there are studies of "the effect" of desegregation. Thus, in organizing the following discussion I have often been forced to draw on research and theory which seems to have implications for the topics under discussion but which was not developed with that purpose in mind. This means that much of what follows is more speculative than I would like. Yet, the only alternative to that seems to be to say that with the exception of one or two well-researched practices, we have little or no quantitative research helpful in determining the likely impact of school practices on race relations.

Before proceeding to a discussion of how various school practices are likely to influence relations between students, it is important to emphasize that the review of various practices will focus on their likely impact on this one very specific area. Many of these practices may have an important impact on other variables. Failure to discuss this impact here is a function of the particular focus of this review. Obviously, in deciding whether or not to adopt any particular practice a broader perspective which weighs gains and losses on the whole variety of dimensions would be required.

A Framework for Viewing School Practices

One of the most frequently employed perspectives on desegregation and intergroup relations was suggested by Gordon Allport (1954) nearly a quarter of a century ago. This perspective, sometimes called contact theory, argue that in order for increased contact to lead to improved relations, three conditions were necessary. The first of these is equal status. The second is cooperation and the third is the support of authorities for positive intergroup relations. Contact theory has been criticized for lack of clarity and some researchers have argued that, for example, equal status is not a *sine qua non* for improved intergroup relations but merely one possible way of achieving this goal (Amir, 1976). Nonetheless, the contact theory variables seem to provide a useful conceptual framework within which to examine the impact of many of the school policies or practices which have been studied.

To my knowledge, there are only two studies which have carefully compared race relations outcomes in desegregated school situations which approximately fulfill Allport's contact conditions to outcomes in interracial school situations which do not fulfill these conditions. Lachat (1972) studied racial attitudes in an all-white school, a racially mixed school which approximated the Allport contact conditions (the integrated school) and a racially mixed school which did not meet the Allport conditions (the desegregated school). Although there was a considerable amount of voluntary segregation in informal social activities in the integrated school as well as in the desegregated one, the white students were almost twice as likely to hold positive attitudes toward blacks in the former school as in the latter (71% versus 37%).

In the second study, Schofield and Sagar (1977) found different trends in the amount of interracial interaction occurring in different grades of a school. In the seventh grade, where classes were racially and academically heterogeneous and policies stressed cooperation, racial mixing in the school cafeteria increased over time. In the eighth grade, characterized by academically tracked, racially homogeneous classes and an emphasis on individual accomplishment, racial mixing in the cafeteria decreased over time.

Although studies like those mentioned above are a clear advance over earlier studies which made little or no effort to characterize the nature of the desegregation experience and to link differential experiences to differential outcomes, they do have one important theoretical and practical limitation. Since the school experiences compared differ on a number of dimensions, it is impossible to disentangle the impact of any one variable. For example, the very different outcomes in the two grades studied in the Schofield and Sagar research could be due to (a) the racial isolation caused by tracking in one grade; (b) the unequal status of blacks and whites in the tracked grade; (c) the greater emphasis on cooperation in the untracked grade, etc. Thus, while these studies lend some support to Allport's original contention they do not help the theorist or practitioner to decide whether one or all of the Allport conditions are necessary to produce the observed effects.

To explore this question and to begin to untangle insofar as possible the impact of particular policies or programs, I will now explore what research suggests about the impact of a variety of policies and programs which can be considered one at a time. These practices will be roughly grouped under the three conceptual variables which Allport has suggested are important. These groupings are for heuristic purposes only. In some cases, one could argue that a specific practice fits as well under one variable as the other. In spite of these occasional ambiguities, contact theory provides a useful skeletal framework for integrating the various studies. Some readers may find that a particular policy or practice of special interest to them is not considered here. Given the nature of this review, the topics covered are quite naturally limited by the research which is available. The paucity of research in the general area makes the importance of further carefully planned work all the more obvious.

Practices Influencing Equal Status of Minority and Majority Group Members

There are three very different views in the desegregation literature of how "equal status" should be defined. A brief discussion of these views will be presented here, not as a way of deciding which definitions is closest to Allport's (1954) original conceptualization, but rather as a way of laying out several dimensions of status, all of which seem likely to have an important effect on the outcome of intergroup contact. Kramer (1950) succinctly captured two of the three aspects of equal status by differentiating between status within and outside of the contact situation. Many theorists, perhaps the best known of whom is Pettigrew, have argued that Allport's original arguments concerned equal status within the contact situation. These theorists tend to focus on equal access to roles within formal organizational structures and believe that equal status of this sort can be obtained even if the status-linked background characteristics of the majority and minority group members are very different.

In sharp contrast, researchers like St. John (1975) and Armor (1972) emphasize the ways in which inequality in socio-economic status or other personal characteristics can undercut the attainment of equal status within the contact situation. For example, St. John writes (1975): "Black and white children may be unequally prepared to be successful students or may be accorded unequal status in the peer group because of differential family background" (p. 98). According to this view, even if the school is carefully structured to five black and white children equal formal status, inequalities due to differential socio-economic status or academic performance may create serious problems.

Cohen (1975) goes even further arguing that even when blacks and whites are accorded equal formal status and have similar background characteristics, race itself operates as a diffuse status characteristic to create the expectation that whites are more competent. She argues that these expectations lead whites to behave in a dominant rather than an "equal status" manner in interracial interactions.

Cohen's view of equal status is notably different from Pettigrew's on two important dimensions. First, whereas Pettigrew tends to focus on access to various positions in formal and informal status structure of an organization, Cohen focuses more upon the interaction patterns which emerge. Indeed, one could even argue that the type of behavior that Cohen studies could be reasonably conceptualized as a desirable outcome of carefully planned interracial contact as well as a possible mediating variable leading to other outcomes such as a reduction in stereotyping. Second, Pettigrew (1969) clearly states that equal status can prevail within a contact situation even when major differences in family background exist between black and white students. Cohen's argument, on the other hand, suggests that even if blacks and whites come from similar backgrounds, are equally capable, and are given equal formal status, being black or white in and of itself creates expectations which lead to unequal participation and influence in peer interactions.

Pettigrew's (1967) view of equal status suggests that close attention be paid to aspects of a school's organization and structure which affect the formal roles blacks and whites have within desegregated schools and the opportunity each group has to influence decisions within the school. This viewpoint suggests consideration of factors like the racial composition of the school and its staff, which clearly have strong potential for affecting power within the school, as well as practices like tracking and ability grouping within classes which may resegregate students into groups which differ in status.

The perspective of individuals like St. John and Armor suggests that one needs also to pay close attention to the possible impact of factors such as similarity in achievement or socio-economic status on the evolution of relations between students. The socio-economic status and the achievement levels of black and white children at any point in time in a school district are given. Yet, policy makers often have some choice about the way in which students with different backgrounds characteristics will be assigned to specific schools. Since some flexibility about patterns exists in many situations, it seems worth considering what is known about the probable outcomes of different strategies.

Finally, Cohen's work suggests that close attention should be paid to childrens' expectations since these expectations can lead to white domination of interracial interaction even when the children involved have equal formal status in the contact situation and similar levels of ability.

Racial Composition of the Student Body

The racial composition of a school is, of course, heavily influenced by the demographic characteristics of the area in which that school is located. Nonetheless, when desegregation plans are being formulated there is often the potential for some flexibility in deciding what the desired racial mix of a school or set of schools should be.

The final racial mix of any school seems very likely to have an impact on the potential for equal formal status for the different racial and ethnic groups within the contact situation. If any group is a very small minority in the student body, it will naturally have difficulty in making its presence felt and establishing an effective power base. Such problems are most likely exacerbated for members of minority groups for two reasons. First, many racially mixed schools view their mission as one of assimilation (Sagar and Schofield, forthcoming). The assimilationist ideology holds that integration will have been achieved when minority groups can no longer be differentiated from the majority group in any significant ways. This viewpoint thus tends to deny the value of aspects of minority culture which minority group members themselves may value. Second, minority group members have traditionally been powerless relative to majority group members. Indeed such powerlessness is generally part of the sociological definition of the concept of minority group. Compounding this is the individual powerlessness in face to face interaction which Cohen has documented and called an interaction disability. Thus, rather than winning a place in the status structure of a school, minority students who form a very small proportion of the students in desegregated schools may become "invisible" boys and girls whose presence makes no difference. This phenomenon is well illustrated in the following conversation among some white teachers on the first day of a token desegregated program in the school studied by Rist (1978).

> When Mrs. Brown said Donald (a new black student) would be no problem, one of the secretaries . . . said, "I don't think with this small number . . . that there should be any problems. Now if there were seventy-five or a hundred, it would be different. But I don't think twenty-eight will make any difference at all. We probably won't even know they are here." This comment was greeted with nods of agreement from the other teachers. (p. 83).

There are a number of studies which suggest that if the proportion of minority students in a desegregated situation is quite small, relations between minority and majority group members may be adversely affected. For example, Koslin, Koslin and Pargament (1972) found that when black students form less than 15% of the student body, they choose friends on the basis of similar racial group membership more than in other situations. Willie and McCord's (1972) study of black college students on predominantly white college campuses found quite strong norms against mixing with whites. Taking a similar position, Crain writes (cited in Roberts, 1980, p. 4), "When whites are the overwhelming majority in a school, blacks apparently engage in self-segregation in order to maintain their group identity."

When the proportion of any one group is very small, outgroup members have very little opportunity to interact with members of this group even if they are inclined to do so. Rosenfield, Sheehan, Marcus, and Stephan (forthcoming) found that the higher the percentage of minority students in a class, the more minority friends white fourth graders had.[4] This finding is quite consistent with other similar research as summarized by McConahay (1978). However, there are occasional studies that suggest that interaction with the outgroup is far from a direct linear function of the number of outgroup members available for interaction. For example, Roberts (1980) found that the percentage of black students reporting various types of interactions with whites was somewhat higher in schools which were more than 25% white than in schools that were less than 25% white. However, there were very few consistent differences in the reported frequency of such interactions in schools which varied from being 26% to nearly 100% white. Davidson, Hoffman and Brown (1978) performed a study which explored the impact of school racial composition on high schools' racial climate which was conceptualized as a function of both the amount and type of peer interracial interaction. The study concluded that whereas the rate of change in the racial composition was clearly related to the interracial climate, that racial balance itself was not. A more detailed look at data from the same study does, however, suggest a more complex relationship between schools' racial composition and various aspects of students' intergroup attitudes and behavior. Those interested in the intricacies of this issue are referred to Patchen (forthcoming).

In summary, there is some evidence suggesting that token desegregation in which minority group members form a very small proportion of the student body is not particularly conducive to improved race relations for three reasons. First, black students may cluster together in such situations and thus have little contact with whites. Second, even if black students are open to intergroup contact in these circumstances, they are not present in sufficient proportion to give many white students an opportunity to interact with them. Third, small numbers seem likely to be conducive to a lack of power within the school. Thus, traditional status relations may be maintained because the minority group students lack the sheer numbers to become an influential force in the life of the school.

Racial Composition of the Staff

There are to my knowledge no published studies which examine the effect of the racial composition of a school's teaching staff on race relations between students although one as yet unpublished study found little relationship between the interracial attitudes and behaviors of students in desegregated schools and their opportunity for contact with black teachers. One could argue that the modelling of positive interracial behavior by staff might well influence students. Indeed, a recent large-scale study by Genova and Walberg (1980) found a moderate positive correlation between staff modelling of positive intergroup relations and positive intergroup attitudes and behavior in high school students in several northeastern cities. Further, it seems unlikely that majority group students would begin to perceive and react to other students in an equal status manner if minority group members are conspicuously absent from the staff. Finally, one well-designed recent study concluded that minority teachers were more equitable in their instructional grouping practice than were majority group teachers (System Development Corporation, 1980). Specifically, this study showed that minority teachers were more likely to treat minority and majority students in a similar manner when assigning them to possible work situations (alone, in a dyad, in a large group, etc.) than were majority teachers. In addition, the minority teachers tended to pay more attention to minority students in non-academic contexts than did majority group teachers. Thus, to the extent such practices help minority students feel comfortable and welcome in desegregated schools. The presence of minority faculty may well improve black/white relations.

Tracking of Academic Classes

There has been very little research on the effect of academic tracking on race relations in desegregated schools. The few studies that do exist have somewhat mixed outcomes. Slavin and Madden's (1979) reanalysis of the ETS data on desegregated high schools found no significant effect of tracking on the six race relations outcome variables they studied. The Schofield and Sagar (1977) study cited earlier (p. 19) suggested a negative impact of tracking. However, since the tracked and untracked grades also varied in other respects, the implications of this study for tracking are far from unequivocal. Finally, the National Opinion Research Center (1973) study of southern schools found a negative effect of tracking on race relations in their elementary school sample and no consistent effect in high school. Yet, the NORC study has such serious methodological problems that it seems best to give these findings relatively little weight.[5]

Given the dearth of direct evidence about the impact of tracking and the potential importance of policies about tracking, it seems important to see what theoretical work and other empirical evidence might bear on the issue. The first and most obvious question to be addressed in trying to assess the potential impact of tracking on race relations is to ask to what extent tracking will result in resegregation within a school. To the extent that race is correlated with actual or perceived academic performance, tracking would tend to create classes which differ in racial composition. It seems obvious that a tracking system which yields heavily black low status tracks and heavily white high status tracks can only reinforce traditional racial stereotypes. Such situations not only undercut opportunities for contact in classrooms but reinforce the traditional status order in society. Thus, it seems highly unlikely that such a system could improve race relations and reasonably likely that such a system might create problems. Reinforcing this line of reasoning are the results of the Genova and Walberg (1980) study which found that the opportunity for racial mixing was more strongly related to student racial attitudes and behavior than any of the eighteen other school practice and school climate variables studied.

Although a tracking system which results in virtually all white or all black classes seems bound not to improve race relations, the impact of a system which tracks while nonetheless maintaining some racial heterogeneity is more difficult to assess. Some considerations suggest that such a system might have positive effects, whereas others suggest negative effects. On the positive side is the large body of research in social psychology which suggests that perceived similarity fosters attraction between individuals (Newcomb, 1961; Schacter, 1951). To the extent that tracking leads to increased perceived similarity, it should then lead to more positive relations between classmates from different racial or ethnic groups. Indeed, a recent study by Rosenfield et al. (forthcoming) suggests that the more equal the socioeconomic status and academic acheivement of whites and minority group children in a classroom, the more minority friends white students have. A rather different study of secondary schools found similar results (Olson, 1977). In this study, racial prejudice was lowest in classrooms where the achievement gap was smallest. Research conducted in Israel by Amir, Sharan, Bizman, Rivner and Ben-Ari (1978) also suggests that there is more intergroup strain in junior high schools in which there is a great deal of academic heterogeneity than in schools in which members of the different ethnic groups have relatively similar levels of academic achievement. Close study of classroom life in an American school has suggested a number of ways in which great disparity in academic performance between blacks and whites can lead to strain and misunderstanding (Schofield, 1980, forthcoming). Although there is less directly relevant research, it also seems reasonable to suggest that similar levels of achievement should be conducive to the weakening of stereotypes linking race and academic ability since there is evidence suggesting that children perceive their classmates' academic performance quite accurately (Cohen, 1979; Sagar and Schofield, 1980). A study by St. John and Lewis (1975) suggests that for blacks and whites popularity with peers of both races is associated with high academic performance relative to one's classmates. Although this finding is not completely consistent with the idea that similarity produces attraction, it too suggests the possibility that black children who are not well above average in academic achievement might fare better with their classmates in tracked than in nontracked classrooms.

On the other hand, suggesting that tracking may have negative effects, there is evidence that racial balance within a school, defined as the proportional distribution of blacks and whites across all classes, is related to positive race relations (Koslin, Koslin, Pargament, and Waxman, 1972). As long as race and achievement are correlated, tracking will of necessity lead to racially unbalanced classrooms. Although the reason for the relation between racial balance and race relations have not been empirically established, Koslin et al. (1972) argue that the existence of racially imbalanced classrooms is likely to make race more salient and to restrict intergroup contact. It should also be noted that to the extent the racial imbalance is caused by tracking, unbalanced classrooms also create a situation in which the status of majority and minority group children in the school is clearly and often officially unequal.

In summary, research on the impact of academic tracking on race relations is sparse. Some factors suggest that, in certain situations, tracking might have some positive effects on race relations. Others factors suggest just the opposite. The one thing that is clear is that if tracking results in virtually complete resegregation within a school, there are no grounds for expecting it to improve race relations and there are clear grounds for expecting it to reinforce traditional stereotypes.

Ability Grouping Within Classrooms

The one large study examining the effects of ability grouping within classrooms on relations between black and white children found no consistent statistically significant effects. Perhaps one reason why no consistent effects were found was the fact that such groupings may have quite different effects depending on the circumstances in which they are used and the way in which such groupings are implemented. For example, Schofield and Sagar (1979) report on two very different types of ability grouping found in the same school. One teacher divided students in his five math classes to group 1 (the fast group) and group 2 (the slow group). The teacher made frequent references to the differences in the performance levels of the two groups. In all but one class, no black students were in group 1 and few, if any, white students were in group 2. Children were seated with others in their own group and movement around the class was strongly discouraged. Once placed in a group children were rarely moved as the quality of their work changed. A second teacher used ability grouping in a very different way. Children were divided into three or four ability levels. Thus, although the top group was primarily white and the bottom group was primarily black, a significant proportion of the students worked in mixed groups. Finally, the teacher rarely made overt invidious comparisons between groups and frequently moved children from group to group as their progress seemed to warrant. The first type of ability grouping not only virtually prevented any contact between black and white children but also highlighted achievement differences. The second type resulted in a great deal of intergroup cooperation and contact among academic equals of different racial groups and, relatively speaking, minimized status differences between black and white children.

Similarity of Academic Performance and Socioeconomic Status

Unfortunately there is little research directly relevant to determining how race relations are likely to be affected by differences in academic achievement or socio-economic status. Indeed, just recently Hawley (1980) wrote, "There is no published research on the effects of SES mixture on race relations in desegregated schools." (p. 41) There are, however, a few bits of evidence related to this issue. First, there are the studies discussed earlier which suggest that perceived similarity is conducive to attraction. This body of research suggests that to the extent social class is a salient feature of their peers children would be attracted to those of similar background more than to those who differed from them greatly. Furthermore, in the event that social class background itself is not important to students, the strong correlation between social class and achievement, combined with the fact that similarity in achievement is conducive to the development of friendship between children of different racial or ethnic groups, suggests that similarity in social class might be helpful in fostering positive relations.

On the other hand, there is evidence suggesting that whites with relatively high levels of education are likely to be less overtly and strongly prejudiced than whites who have less education (Campbell, 1971; Nunn, Crockett and Williams, 1978; Selznick and Steinberg, 1969).[6] Making the reasonable assumption that children's racial attitudes are influenced by their parents' attitudes, one might then expect that white children from well-educated families would be more favorably predisposed toward their black classmates than other white children. Thus, rather than maximizing similarity of social class, one might try to insure that white children from well-educated families are maximally involved in any desegregation plan. Whether their more favorable predisposition toward blacks in general would result in positive attitudes and behaviors in spite of the marked differences in average levels of achievement and socioeconomic status which would probably exist

remains an open question. Furthermore, it is quite possible that black students mixed with whites from unusually educated backgrounds would be put in a position which would create powerlessness and feelings of hostility. A study by Davidson, Hofmann and Brown (1978) clearly suggests that the racial climate is better in high schools in which the black and/or white students are of relatively high socioeconomic status compared to those schools in which neither group is of high status. This study suggests that the presence of students of high socioeconomic background is more conducive to creating a positive intergroup atmosphere than equality of socioeconomic status. Further analysis of the data utilized in this study suggested that neither similarity of academic achievement nor similarity of socioeconomic status were related to positive race relations in desegregated high schools (Patchen, forthcoming).

Techniques to Alleviate the Impact of Race as a Diffuse Status Characteristic

As indicated earlier in this review Berger, Cohen, and Zelditch (1966; 1972) have developed a theory of status characteristics and expectation states that Cohen and her colleagues have applied to studying interracial interaction. In brief, their theory argues that the status order in society engenders expectations about competence that become widely held by members of both the higher ranked and the lower ranked groups. When members of these groups come into contact, these mutually held expectations about competence may lead to dominance and actually superior performance by the higher ranked group. The theory further holds that expectations need not be conscious to influence behavior.

Cohen (1972) argues that in American society race is one of the status characteristics that lead to the self-fulfilling prophecy predicted by the theory. This argument gains strong support from Cohen's demonstration that white junior high school students working in biracial groups dominate interaction even though the experimental situation was carefully constructed to eliminate all factors, aside from the students' expectations, that might promote dominance by either race. Katz (1964) and his colleagues had previously found similar dominance by white college students in biracial work groups. Cohen argues that in thinking about race relations in desegregated schools it is important to recognize that relatively comfortable friendly relations are not the same thing as equal status relations. She also holds that any useful definition of "good" race relations should include emphasis on equality in interaction.

Fortunately, research has not only documented the existence of an imbalance in influence which Cohen and her colleagues predicted on theoretical grounds but also has suggested ways of changing this imbalance. For example, Cohen and Roper (1972) reasoned that if expectation states help to account for white domination of interaction in biracial groups, then changes in expectations should lead to changes in such patterns. Hence, they used a specially designed training experience to influence black children's expectations about their own competence. Black children were taught how to build a radio and also instructed how to teach the skill to others. Then these children viewed a film of themselves constructing the radios. Next, some of the black children taught white children how to build the radios while others taught the skill to a black administrator. The white children who learned how to build the radio from a black child also saw a videotape portraying this same child in a teaching role. Then all these children plus some white children who had not had their expectations about black competence treated as described above participated in small biracial groups. The groups in which black children had taught whites how to make the radio showed a pattern of equal-status interaction. The other groups showed the familiar pattern of white dominance, however. Cohen and Roper (1972) concluded that unequal interaction patterns will persist unless the expectations of both groups are treated.

Another very recent study replicated most of Cohen and Roper's results. Riordan and Ruggiero (1980) found that without a treatment of their expectations black and white children were not equally influential in a biracial interaction even though their experiment controlled for socioeconomic status, age and sex. As expected, whites tended to dominate the interaction. In this study which used a more prolonged treatment than the Cohen and Roper study, the treatment of black expectations only and the treatment of black and white expectations both increased the influence of black children. Indeed, treatment of black expectations only lead to equal status interaction. Treatment of both groups led to black dominance.

There are some data suggesting that white children tend to dominate Anglo-Chicano interactions just as they tend to dominate black/white interaction (Robbins, 1977). There is also evidence that this pattern is malleable and can be altered by the expectation training techniques which Cohen and her colleagues have developed (Robbins, 1977).

Taken as a whole then, research in this area suggests that effective techniques are available for reducing the tendency of white children to dominate interaction just because they are white. The studies performed to date have concentrated on interactions involving non-academic tasks. Such interactions occur in many school settings. Furthermore, it does not seem fanciful to think that some of the treatment techniques could be modified for use in academic classroom settings.

Practices Influencing Cooperation Between Minority and Majority Group Members

There is much evidence suggesting that cooperation can and often does have quite positive effects on interpersonal and intergroup relations. As Worchel (1979, p. 264) points out:

> Research has demonstrated that cooperation results in increased communication, greater trust and attraction, greater satisfaction with group production, (and) greater feelings of similarity between group members.

Such evidence has led many theorists and researchers to suggest that inducing cooperation between children from different racial or ethnic groups may well help to foster improved intergroup relations in desegregated schools. Quite a large number of studies suggest that this is indeed the case.

There is also evidence, however, that a significant amount of cooperation does not often occur spontaneously between blacks and whites in interracial schools. Reports of voluntary resegregation on the part of students for both social and academic activities are legion (Collins, 1979; Cusick and Ayling, 1973; Gerard, Jackson, and Conolley, 1975; Schofield and Sagar, 1977; Silverman and Shaw, 1973). Thus, schools hoping to improve race relations need to adopt strategies designed to promote cooperation. There has been a great deal of research on strategies for promoting cooperation on academic tasks. There is less research on the impact of cooperation in the non-academic sphere on students' racial attitudes and intergroup behavior.

Cooperative Learning Techniques.

In a large correlational study of the relation of various school practices to six different indicators of students' intergroup attitudes and behavior, Slavin and Madden (1979) found that the one practice which showed quite consistent positive effects was assigning black and white students to work together on academic tasks. It is interesting to note that a study by Roberts (1980) suggests that this practice is almost twice as common in schools which have many white students than in schools which are 25% or less white.[7]

Although the Slavin and Madden study suggests that assigning students to work together does have a positive effect, it seems clear that some types of cooperative situations are more likely to promote positive relations than others. For example, there are studies which suggest that whites working in cooperative groups with blacks respond more positively to their black teammates when the group experiences success than when it fails (Blanchard, Adelman and Cook, 1975; Blanchard and Cook, 1976; Blanchard, Weigel, and Cook, 1975). One of these studies suggests that whites show more attraction to a black work partner when he performs competently than when he performs poorly although no parallel phenomenon who observed the ratings of white partners (Blanchard, Weigel, and Cook, 1975). It is easy to see how friction might evolve if children of different achievement levels are required to work together and to share a joint reward for their product. Thus, although the Slavin and Madden study suggests that in general assigning students to work together does have positive effects, it seems important to specify carefully the type of cooperative situation one is speaking about.

Most of the research on cooperative learning techniques for classroom use with academic subject matter has focused on one of four models: Teams-Games-Tournament (TGT), Student Teams-Achievement Divisions (STAD), Jigsaw and Small-Group Teaching. All four techniques have been researched extensively in classroom settings and have books or manuals which explain their implementation. For further details on the specific techniques readers are referred to Slavin (forthcoming).

In some of these techniques, like Aronson, Blaney, Stephan, Sikes and Snapp's (1978) work on the Jigsaw Method, cooperation between students on racially or ethnically mixed teams is induced through task interdependence; that is, no individual child can fulfill his or her assignment without the assistance of others. In other cases, like Slavin's STAD technique, cooperative behavior between students is induced through reward interdependence; that is, each child's grade is partially dependent on the success of other group members. Although they differ in many ways, most of these techniques have mechanisms which allow lower achievers to contribute substantially to the attainment of the group goals. In spite of the rather important conceptual differences in the way in which cooperation is induced in the different team learning programs, there is a very noticeable similarity in the outcomes which stem from use of these techniques. The large majority of studies suggest that use of these techniques leads to some improvement in intergroup relations, even if the student teams are used for a small part of the school day for no more than two or three months.

Slavin has very recently reviewed much of the literature on these small group learning teams. Rather than repeat this analysis, I have borrowed directly from Slavin's work in constructing Table 3 which displays a summary of the results of ten studies which examined the impact of various small group learning techniques on race relations. As can be seen from this Table, the large majority of such studies show positive effects. A very few show no consistent effect and none suggest an overall negative impact of these cooperative strategies on intergroup relations. Thus, it appears safe to say that these strategies are quite likely to have a positive impact on intergroup relations between black and white students.

In contrast to the situation regarding most of the school policies and practices discussed in this paper, there are a few studies which explore the impact of cooperative work groups on peer relations in classrooms with Hispanic students. Specifically, a study by Geffner, 1978 (cited in Towson, 1980) found that fifth grade Anglo and Mexican-American students liked each other more in classrooms using cooperative learning techniques than in classes using a different innovative teaching strategy which did not involve cooperation or in traditionally structured classrooms. Indeed, over time, students in the cooperative classes came to like their classmates more than

TABLE 3

SUMMARY OF COOPERATIVE LEARNING STUDY CHARACTERISTICS AND RACE RELATIONS OUTCOMES

Study	Grade in School	Subject Area	Cooperative Technique	Duration (weeks)	Outcome
Cooper, et al (1977)	7	various	other	3	+
DeVries & Edwards (1973)	7	math	TGT	4	0
DeVries, et al (1974)	10 - 12	social studies	TGT	12	+
Edwards & DeVries (1974)	7	math	TGT	12	+
Edwards, et al (1972)	7	math	TGT	9	+
Slavin (1977)	7	language arts	STAD	10	+
Slavin (1978)	7 - 8	language arts	STAD	12	+
Slavin & Karweit (1979)	4 - 5	various	combined program	16	0
Slavin & Oickle (1980)	6 - 8	language arts	STAD	12	+
Weigel, et al (1975)	7, 10	English	other	20 - 30	+

Note: Table adapted from Slavin (1980)

previously, those in the innovative classroom showed no change over time, and those in the traditional classes decreased their liking for their classmates.

A number of other studies also support the idea that cooperative learning strategies have positive effects on intergroup relations in classes containing Hispanic children although these studies rarely, if ever, find positive changes for all groups on all measures of liking and respect (Blaney, Stephan, Rosenfield, Aronson, and Sikes, 1977; Gonzales, 1979; Weigel, Wiser & Cook, 1975). For example, Weigel et al. (1975), examined the impact of small interdependent work groups on the intergroup attitudes and behavior of white, black, and Mexican-American teenagers. Not surprisingly, cross-ethnic helping behavior was strikingly more frequent in the experimental classrooms than in the control classrooms. However, a statistically significant change in intergroup attitudes was found only for white students' attitudes towards Mexican-Americans. White students in the experimental classrooms rated their Mexican-American classmates as favorably as their white peers. Such was not the case in the traditional classrooms.

Before leaving the question of the impact of cooperative learning strategies on intergroup relations, it is worth mentioning that a number of studies have found that Mexican-American children are generally more positive oriented toward cooperation than are either black or white Americans. (Kagan, 1977; Kagan, forthcoming; Knight and Kagan, 1977a; Knight and Kagan, 1977b; Madsen and Shapiro, 1970). This finding has led some researchers such as McClintock (1974) to argue that Mexican-American children are likely to be at a disadvantage in traditionally organized American classrooms which tend to emphasize competition. Thus it may be that cooperative strategies not only have a positive impact on intergroup relations in classes including Mexican-Americans but also are particularly well suited to these children's cultural background.

Cooperation in Extracurricular Activities

There is much less research on the effects of cooperation in non-academic spheres on intergroup relations than there is on the various cooperative learning techniques. Yet two things do seem clear. First, unless schools plan carefully, extracurricular activities which provide opportunities for cooperation may well become completely or virtually resegregated. Second, cooperation in non-academic activities can be used to foster positive intergroup relations. Let us examine these two propositions separately.

A number of studies suggest that unless schools take steps to prevent it, a great many extra-curricular activities become typed as black or white. For example, Scherer and Slawski (forthcoming) report that in a high school they studied basketball and football were considered black sports and swimming was seen as a white activity. These perceptions made it difficult for interested students to get involved in activities which "belonged" to the other group. Similarly, Collins (1979) reports in a study of a high school which was 60% black that football and basketball became black sports and that white boys interested in basketball tended to compete on church-sponsored teams rather than on their school team. Over time the school cheerleading squad also became entirely black. St. John (1964), studying two schools which were about one-fifth black, found that black students were markedly underrepresented in some activities, like the school newspaper and the student council, and markedly overrepresented in boys' sports and on the majorettes squad. Although none of the activities were close to completely black, some were almost completely white.

It seems unwise to argue that ideally all types of students should participate in all clubs in exact relation to their proportion in the student body. Cultural differences between ethnic groups may lead to differences in interests which would naturally be reflected in differential rates of enrollment in some activities. Yet, often it seems that the resegregation of extracurricular activities is much more than a reflection of different interests. Rather, once an activity is seen as belonging to a particular group, members of other groups who would like to join begin to feel uncomfortable and unwelcome. A study by Nelson and Uhl (1976) suggests that black students who are in white schools are more likely to feel that they are not welcome in extracurricular activities and to fail to participate than are black students in racially-balanced or predominantly black desegregated schools. Resegregation of extracurricular activities is especially unfortunate since many of these activities present good opportunities for cooperative contact which differences in academic performance may not impede as much as they sometimes impede smooth cooperation in the classroom.

The potential for cooperative involvement in extracurricular activities to improve intergroup relations is suggested by Patchen's (forthcoming) work which found that participation in extracurricular activities had a stronger impact on interracial friendships than almost any of the other numerous variables in his study. Consistent with this result was Slavin and Madden's (2979) finding that participation on integrated athletic teams was one of the few variables variety of positive intergroup attitudes and behavior.[7] The correlational nature of this study leaves the direction of causality unspecified. Yet, given the clearly demonstrated positive effects of cooperative activity on intergroup relations, it seems reasonable to assume that at least some of the relation stems from positive impact of joint athletic activity. Crain's (1977) work suggests that having winning athletic teams is negatively correlated with racial tensions in desegregated schools, suggesting that under some circumstances, at least, athletics can have a positive impact on relations between black and white students who are not themselves athletes. A number of studies have suggested that boys in desegregated schools engage in more positive interaction across racial lines than girls (Francis and Schofield, 1980; Jansen and Gallagher, 1966; Schofield and Sagar, 1977; Singleton and Asher, 1977). One of the many possible factors contributing to this phenomenon is the greater involvement of boys in extra-curricular activities, most especially sports. For example, St. John (1964) found that boys in a desegregated school were more active in extra-curricular activities than girls, primarily because of their involvement with athletic teams. Although there has recently been considerable controversy about increasing the involvement of girls in athletics, it is clear that boys' intramural and extramural athletics are still generally much more important in the social life of schools than are girls' athletics. Thus, boys often have opportunities for cooperative endeavors in a highly valued sphere which are either not open to girls or available but not highly valued.

Although team sports are a very visible cooperative extra-curricular activity, they are far from the only ones. Activities like the school newspaper, band, dramatic club and choir also provide an opportunity for students to work together toward shared goals. The important question appears to be how to insure that such activities, including sports teams, do not become segregated. Although to my knowledge there are no studies that empirically test the effectiveness of various strategies, there is some research which reports efforts which seem to make sense and which were generally acknowledged to be effective by those in the schools involved. For example, Schofield (forthcoming) reports that to keep school clubs from being voluntarily resegregated, one school official monitored club lists and actively set about recruiting students to clubs to achieve greater racial balance. Often this recruitment involved encouraging several children who were already friends to join a particular group. Thus, fears about being the only white or black were eased. Furthermore, children in the racial minority in a particular club who dropped out of that club were contacted and encouraged to rejoin with their friends rather than to leave the activity altogether. This same school also made strong efforts to insure that positions of special status in extracurricular activities were distributed fairly equally between whites and blacks. For example, in casting for the dramatic club play, the drama club advisors specifically decided to divide the leading roles equally between whites and blacks. Also, in one grade a student council open to anyone who was interested was formed. The council, sponsored jointly by a black faculty member and her white colleague, was generally acknowledged to have had a very positive impact on relations between students (Schofield and McGivern, 1979).

In summary, there is substantial evidence suggesting that cooperation in the pursuit of shared goals can have a positive effect on relations between students in desegregated schools. There are a number of well-researched techniques available for promoting cooperation in the classroom. Although the impact of cooperation on non-academic tasks has not been as closely studied, it too seems conducive to positive relations. Further, it is clear that the resegregation of widely valued extracurricular activities like athletics can lead to tensions and resentment. Thus, strategies which are effective in encouraging cooperative contact in such activities seem likely to lead to more positive intergroup relations.

Practices Relating to the Support of Authorities for Positive Intergroup Relations

The most salient authority figures for children in a school setting are undoubtedly their teachers and the school administrators such as the principal. The evidence to be reviewed here suggests that principals and teachers can have an important impact on the evolution of intergroup relations in their schools. As will become apparent, some of this impact stems directly from practices directly related to their support for positive intergroup relations while some of it stems from practices which may be adopted for a wide variety of reasons.

Principal's Commitment to Encouraging Positive Intergroup Relations

There is a considerable amount of evidence suggesting that principals can have an important impact on the evolution of intergroup relations in desegregated schools. Much of this evidence comes from intensive case studies of small numbers of schools (Noblit, 1979; Willie, 1973). However, some of the large correlational studies have come to a similar conclusion. For example, Genova and Walberg's (1980) study found a moderate relationship between their measure of staff support for integration and both student interracial attitudes and behavior. Included in this measure were items like, "Our principal likes students of different races and ethnic groups going to the same school together." One analysis of the impact of the Emergency School Assistance Act (ESAA) found that black and white children in schools in which the principal felt the achievement of good intergroup relations was important were more likely to interact in the lunchroom and at recess than were children in schools in which the principal did not give this goal high priority (Wellisch, Marcus, MacQueen, and Duck, 1976). A second study of schools receiving ESAA funds found a relationship between positive attitude change in students, especially white students, and the principal's experience working in a desegregated school (System Development Corporation, 1980).

One important question that arises in thinking about such findings is how a principal's ideological commitment to positive intergroup relations is translated into behaviors which influence childrens' behavior. There are several possible paths. First, principals are often able to make or to influence policy decisions which affect important aspects of students' school experiences. For example, in one school the principal and vice-principals refused to let teachers set up academically tracked racially quite homogeneous classes even though the teachers strongly desired such a policy (Schofield, 1977). Second, principals can help to set a general climate which may influence teachers' attitudes and decisions. Forehand, Ragosta, and Rock's (1976) analysis of data from a large number of desegregated schools suggested that principals' racial attitudes had a direct influence on teachers' attitudes. Even if the principal does not directly influence teachers' attitudes he or she may be able to influence their behavior in realms where teachers are free to make their own decisions since some teachers may hope to achieve their own personal goals by pleasing their principal.

Although a principal's support of positive intergroup relations does seem to have an effect on such relations, there may well be aspects of a principal's behavior quite unrelated to their ideological commitment to improving race relations which also have a major impact on student race relations outcomes. For example, Cohen's (1979) research suggests that the amount of conflict with specific racial overtones may be highly correlated with the overall level of aggressiveness in a school. Comparing one school with high rates of both types of conflict to another elementary school which had little conflict of any sort, Cohen (1979, p. 22) argues that the low level of conflict in the latter school was "the result of a long and skilled campaign on the part of the principal working closely with his staff." Thus, a principal's overall ability to create a humane and well-disciplined school climate may itself have an impact on race relations. Supporting the point of view that characteristics of principals above and beyond their commitment to intergroup relations, and the behaviors following therefrom, influence intergroup relations is Forehand et al.'s (1976) finding that teachers' ratings of their principal's overall effectiveness were correlated with positive racial attitudes and high levels of intergroup contact reported by white students. Similarly, Patchen (forthcoming) found that the more students believed that mechanisms for solving problems, racial and otherwise, were available in their schools, the more positive were their attitudes towards schoolmates of the other race and the more they reported positive changes in their intergroup attitudes.

Teachers' Workshops

Inservice training for teachers has been widely used in desegregated schools (Acland, 1975). Unfortunately, there is not a lot of evidence suggesting that such training is generally effective in improving intergroup relations. In analyzing the impact of such workshops it seems crucial to distinguish between workshops aimed at affecting intergroup relations and those with quite different goals. Acland's research found that teacher inservice training which emphasized race relations was quite clearly related to a variety of positive student attitudes and behaviors, especially for white students. Other sorts of inservice training, not surprisingly, had no such impact. Slavin and Madden's (1979) research suggests that inservice teacher training focused on race relations does not have a powerful consistent effect. Indeed, such training was significantly associated with only one of the six student race relations outcomes studied for both white and black students. Thus, although Gay (1978) has outlined a variety of seemingly useful and important things teacher inservice training should accomplish, there is mixed evidence about the effectiveness of such workshops.

An evaluation of the impact of various human relations programs funded by the Emergency School Assistance Act suggests that such programs are most likely to have an impact on student attitudes when there is coordination of the special human relations activities with the school's regular instructional program (System Development Corporation, 1980). This finding is hardly surprising, yet it may be important in highlighting the importance of structuring workshops so teachers can incorporate what they learn in the workshops into their regular curriculum, rather than treating it as "one-shot" or "special" material to be used once and then forgotten.

Multiethnic Texts and Minority History

Research suggests that multiethnic texts may have some positive impact on race relations, but the evidence is neither overwhelmingly strong nor completely consistent. The System Development Corporation Study (1980) of Emergency School Assistance Act funded programs found a very modest relation between the extent to which various "human relations" activities, including multicultural activities, were provided in the classroom and students' gain in multicultural knowledge. Genova and Walberg (1980) found a modest correlation between a variable called "multicultural exposure," which reflected the extent to which students studied and discussed the history and culture of various racial and ethnic groups and positive intergroup attitudes and behavior.

Forehand et al. (1976) found a correlation between the use of a variety of "race relations practices" and favorable racial attitudes in black and white elementary school students. Their variable, race relations practices, included the utilization of multiethnic texts and inclusion of information about blacks in the curriculum as well as five or six other components. The same study found a similar relation between these practices and the attitudes of white but not black high school students. However, Slavin and Madden's (1979) reanalysis of the high school data suggest that most of the relationship found in the Forehand et al. research was due to one variable within the composite variable employed by Forehand et al. This variable, as discussed previously, was assigning students to work with those of the other race. When the effect of multiethnic texts was examined by itself, no statistically significant relation was found between the use of such texts and any of the six race relations outcomes examined for white and black students separately. It is worth noting, however, that 11 of the 12 correlations computed were positive. A study by Iadicola (cited in Cohen, 1975) found a negative correlation between the use of multicultural curricula and the extent to which white children tended to dominate blacks in peer interactions. However, the use of such curricula was so closely correlated with the racial composition of both the student body and the staff in the schools studied that it was impossible to determine which of these factors was responsible for the relationship found.

The one experimental study of which I am aware which explores the impact of multiethnic texts on school age children was performed in an all white elementary school. This well designed study (Litcher and Johnson, 1969) compared the racial attitudes of white second grade students who used a multiethnic reader to those of similar white children who used a reader in which all the characters were white. At the end of the four month experiment, the former group showed more positive racial attitudes on four separate measures than did the latter. Although the results of this experiment are quite clear in showing a positive effect of the multiethnic reader on white attitudes, it is certainly possible that one would find more change in attitudes due to a multiethnic reader in a segregated school where that reader is the children's main source of information about the outgroup than in a desegregated school.

Studies of the impact of courses on minority history on intergroup relations are few and far between. In addition, there have been rather conflicting results. Acland (1975) found a correlation between courses on minority history and culture and interracial interaction rates. However, Slavin and Madden (1979) found that the availability of minority history courses was significantly related to only one of the six racial relations outcomes examined for white students and to none for black students. As in the case of the multiethnic curriculum, however, the large majority of the correlations were positive in direction. Finally, one study which found high levels of interracial friendship associated with low levels of prejudice in teachers suggested that the fact that the less prejudiced teachers utilized aspects of minority culture in teaching more than did highly prejudiced teachers might help to explain the relation between teacher prejudice and student interracial friendships (Johnson et al., 1975).

Teacher Behaviors Associated With Intergroup Contact and Acceptance

Koslin, Koslin and Pargament (1972) collected data on the racial attitudes of two successive sets of third-graders who were randomly assigned to a group of teachers in racially balanced schools. They found that teachers tended to have consistent effects on students' racial attitudes. That is, the teachers whose students had the most positive intergroup attitudes in the first year were the very same teachers whose students had positive attitudes in the study's second year. Although attrition problems in the sample of teachers led the researchers to consider their findings as tentative, these finding are nonetheless quite suggestive. Another more recent study also suggests that teachers' perceived racial attitudes have an impact on the interracial behavior of white students, although the size of the effect was small compared to that of parents' and peers' attitudes. How is it that teachers effect students' interracial attitudes? As is the case with principals, teachers may both set a general climate which influences others and engage in specific practices motivated by their racial attitudes which have predictable outcomes. For example, Genova and Walberg's (1980) study found a positive though modest link between racial fairness, exemplified in their measure by items such as, "Teachers are equally friendly to students of all racial and ethnic groups," and students' intergroup attitudes and behavior.

Serow and Solomon (1979) factor analyzed various aspects of teachers' behavior and related the dimensions which emerged from that analysis to two aspects of interracial peer behavior, general positive intergroup interaction rates and joint intergroup effort. Although these two student behavior variables were not completely independent, the latter emphasized task-oriented behavior whereas the former variable emphasized positive affect and social interaction. Serow and Solomon found a positive relation between the teacher's warmth and acceptance of children and general positive interracial interaction. Also, they found a negative relation between this aspect of peer behavior and both the teacher's emphasis on a businesslike atmosphere and his or her tendency to interact directly with students. Although these findings are suggestive, two additional findings must be kept in mind in interpreting them. First, as Serow and Solomon note, a businesslike atmosphere and high levels of teacher-student interaction may well depress overall student interaction. Thus, students in such academically oriented classrooms may not learn specifically to avoid outgroup members. Rather, they tend not to interact much with other students in general. Second, neither teacher warmth nor the two teacher behavior variables which depressed general positive intergroup interactions influenced joint intergroup effort significantly. Rather joint intergroup effort was related to the diversity of structure and activity in the classroom and the teacher's patience and persistence.

The Serow and Solomon study discussed above suggests that certain aspects of a teacher's behavior which may have little or no direct relation to the teacher's racial attitudes can influence relations in the classroom. It should come as little surprise to learn that there is also some evidence that teachers' racial attitudes are related to student outcomes. For example, in the analysis of their high school data Forehand et al. (1976) found that teachers' racial attitudes were quite strongly related to white students. Their data from elementary school suggested a similar although weaker and less consistent pattern.

Gerard, Jackson and Conolley (1975) found, as previously mentioned, a relation between teachers' prejudice and white childrens' acceptance of minority group children as friends. This influence may be transmitted through teacher classroom practices. Indeed, analysis of the data from the schools studied by these researchers showed that teachers who were quite prejudiced were less likely to assign children to work in small groups. The potential positive impact of cooperative work within small groups has been discussed at length previously. Also, as previously indicated, highly prejudiced teachers were less likely to utilize aspects of minority culture in their teaching than were those low in prejudice.

Discussions of Race and Human Relations Activities Involving Students

One way in which some teachers try to improve relations between black and white students is to discuss race in their classes. Slavin and Madden (1979) examined the impact of class discussions on race on students' attitudes and behavior and concluded that such discussions had some positive effects on white students but no consistent one on black students. Specifically, two of the six outcome variables for white students were significantly correlated with such discussions. No significant correlations were found for black students.

Acland looked at the impact of programs specifically designed to improve relations between students and concluded that these programs did indeed have a positive effect. He found that such programs were positively correlated between the presence of such programs and behavior and attitudes were much more common for white students than for blacks. Acland does not describe the content of these programs in any detail. Thus, it is difficult to know whether these programs involved discussion of race or whether they tried to improve black/white relations in other ways such as through stimulating cooperative involvement on projects of interest to both groups. Carbonari and Birenbaum (1980) describe a program based on, although not restricted to, increasing students' understanding of the stereotyping process which led to positive short term attitude change in junior high and high school age students. On the other hand, Lessing and Clarke (1976) report no significant impact of an eight week "multimedia, multiple influence mode" intergroup relations curriculum on the racial and ethnic attitudes of white junior high school students in a suburb which was experiencing racial tensions.

In summary, taken as a whole, the scattered research which is available suggests a weak link between classroom human relations activities and students' attitudes and behavior. One interesting conclusion emerging from the System Development Corporation Study (1980) of Emergency School Assistance Act funded human relations programs was that human relations programs provided directly to students had a greater impact on students' intergroup behavior and attitudes than did programs provided for parents or school staff.

Seating Patterns

Stuart Cook (1969) argues that a variable which is likely to have an important impact on the outcome of contact between two groups is the contact situation's acquaintance potential. He defines acquaintance potential as "the extent to which the situation provides opportunities for getting to know the other race as individuals" (p. 211). Cook does not systematically lay out variables which influence the acquaintance potential of a situation. However, it seems obvious that physical proximity plays a vital role in influencing the acquaintance potential of a particular situation. Unless students from two previously unacquainted and even hostile groups are physically close to each other, it seems unlikely that they will have much opportunity to get to know each other. Yet, it is clear that many desegregated schools do not provide much physical proximity. For example, a recent System Development Corporation (1980) study of schools receiving funds under the Emergency School Assistance Act found essentially segregated seating patterns in one quarter of the classrooms in the thirty-nine schools observed as part of that research. Proximity in and of itself by no means insures the development of positive intergroup relations. However, it does seem to greatly increase the acquaintance potential of a situation.

Teachers can easily affect the acquaintance potential in their classrooms through a variety of classroom practices. One of the most basic of these practices is the teacher's seating assignment policy. Seating assignment policy can be differentiated from policies about small group work. Although it is true that students assigned to work together will most probably have to sit together, often students are assigned to nearby seats without being assigned to work cooperatively. For example, some teachers assign students to sit in alphabetical order whereas others initially let students choose their own seats and then require students to remain in the location they have chosen.

When students are allowed to pick their own seats they often tend to sit next to those of the same race (Schofield, 1979). This, of course, greatly decreases the acquaintance potential of the desegregated classroom. In a study of an all white school, Byrne and Buehler (1955) have shown that students who are assigned adjacent seats tend to become acquainted with each other. Also, Byrne (1971) demonstrated that the number of friendships a student forms in school can be increased if the teacher changes the assigned seating pattern during the course of a semester. The only two studies of which I am aware which yield quantitative data on the impact of seating policies in desegregated schools are consistent with the other studies just cited. Wellisch et al.'s (1976) study found more interracial mixing in informal settings like the lunchroom and the playground among elementary school children whose teachers used classroom seating assignment policies that resulted in a lot of cross-race proximity than among children whose teachers tended to group children by race. Patchen (forthcoming) also found a positive relationship between proximity to other-race students in class seating patterns and a wide variety of positive interracial behaviors and attitudes. Seats were not assigned in all classes in this study making the direction of the casual link between seating proximity and positive interracial attitudes somewhat ambiguous; but internal analyses of the data suggested that seating proximity did have an effect on intergroup relations.

Summary and Conclusion

Two strategies were used to explore the empirical literature potentially relevant to the issue of what strategies are likely to lead to improved relations between black and white children in desegregated schools. First, this paper examined studies which were designed to explore how desegregation itself influences children's intergroup attitudes and behavior. Second, it summarized the results of various studies which have looked directly at the impact of a variety of school practices and policies on children's attitudes and behaviors toward members of other racial or ethnic groups.

The first strategy, a review of the studies looking at the effect of desegregation on students' intergroup attitudes, was aimed at producing review-generated comparisons of studies of different types of desegregated schools which would lead to some conclusion about which types of desegregation are more effective than others. This part of the review did not produce many such conclusions for several reasons. First, an extensive review of the literature located only fifteen studies of sufficient relevance and rigor to warrant inclusion in this review. The number of studies useful for assessment of the impact of desegregation on specific groups of students dwindles still further since some studies look at outcomes for blacks or whites but not for both. As indicated by an inspection of Table 2, the studies which do exist rarely describe the schools in which they were conducted in sufficient detail to make review-generated comparisons of "types of desegregation" possible. In addition, approximately one half of these studies, including both studies of court-ordered desegregation, were conducted less than four months after desegregation. Thus, a substantial proportion of these studies are of questionable utility for understanding the long-term impact of desegregation.

The dependent variables utilized in these fifteen studies vary greatly. Unfortunately, there is little reason to expect that the variables examined are highly correlated aspects of intergroup relations. Furthermore, a large proportion of these dependent variables are measured using "zero-sum" techniques which pick up only the changes in outgroup acceptance which occur at the expense of acceptance of ingroup members. Yet, there is no reason to believe that improved intergroup relations come at the expense of intragroup relations. Indeed, there is some evidence to the contrary (Cohen, 1979). In sum, a number of characteristics of the existing literature on the effect of desegregation of children's intergroup attitudes and behavior, make it virtually impossible to do a useful meta-analysis which compares the outcomes of various desegregation strategies.

The second section of this paper was based on a broad search of the empirical literature on the impact of various school practices and policies on student intergroup relations. Although some experimental studies were located, the vast majority of this research is correlational. Thus, readers must keep in mind that although this review tends to assume that the various policies cause the related outcomes, it is always possible, although more probable in some instances than in others, that this assumption is not warranted.

It is also important to mention that many of the correlational studies do not have measures of the variables they study which maximize the likelihood of finding relations which really do exist between school practices and outcomes. For example, in the studies reviewed, both practices and outcomes were often measured with dichotomous variables. Such variables are far from ideal for use in correlational designs. Their attenuated range makes it possible for covariation which would be found with more sensitive measures to be almost completely masked. Continuous or interval variables with a broad range are much preferable for correlation analysis since they minimize the possibility of false conclusions of no effect.

For heuristic purposes, the various techniques on which there is some research were grouped in three broad categories drawn from Allport's (1954) contact theory. The first category, studies of practices which seem to effect the extent to which blacks and whites are likely to attain equal status in a desegregated school, is quite broad because of the complexity of the concept equal status. Practices were examined relating to three types of status, formal status within the school, informal status linked to personal characteristics like socio-economic background and academic ability and status defined as dominance in on-going interactions when both formal roles and personal characteristics linked to informal status are similar for all interactants.

Factors examined which are related to the first type of status were the racial composition of the study body and staff, academic tracking, and ability grouping within classes. There is evidence that token desegregation in which minority group members form a very small proportion of the study body is not particularly conducive to improved race relations. Some studies have also argued that intergroup relations are, all things considered, likely to be best when each group is represented in roughly equal numbers. However, there has not been a great deal of study of this proposition. Unfortunately, there is virtually no direct quantitative evidence pertaining to the impact of a racially balanced faculty on student intergroup relations although there are some reasons for thinking that a racially balanced faculty would have a positive impact.

Research on the impact of tracking is also fairly sparse and the results are rather mixed. It seems obvious that a tracking system which yields heavily black low status tracks and heavily white high status tracks can only reinforce traditional stereotypes and resegregate desegregated schools. There is also some research which suggests the negative impact of such a system. The results of tracking systems which maintain some racial heterogeneity are harder to assess. On the positive side is the fact that black and white students similar in academic performance level are probably more likely to respond to each other favorably than are those very dissimilar in achievement. On the other hand, there is evidence suggesting that wide variations in the proportion of black and white students in the various classrooms of a school has a negative impact on intergroup relations.

The one large study examining the effects of ability grouping within classrooms on relations between black and white children found no consistent effect. However, data from a qualitative study of a desegregated school suggests that this may be because different kinds of ability grouping within classrooms may have different and even directly opposite effects.

There is little or no research directly relevant to determining how race relations are likely to be influenced by differences in status-linked personal characteristics like academic achievement and socio-economic status. There are some bits of evidence suggesting that similarity of blacks and whites on these dimensions might be conducive to better relations than large differences would be. Yet, there is also research which clearly suggests that desegregation can lead to more positive intergroup relations even when differences in achievement levels and socio-economic background are large (Schofield and Sagar, 1977).

Cohen's theorizing and research has emphasized that it is important to move beyond attention to how smooth and friendly intergroup relations are to also examine power and influence in interracial interactions. Her research shows that even when blacks and whites have similar formal status in a situation and similar background characteristics, whites tend to dominate interracial interaction. Fortunately, research has suggested techniques which are effective in reducing and even eliminating this imbalance.

The second general category into which various studies were grouped for consideration was that including practices which influence the amount of cooperation that occurs between students. There is a great deal of evidence suggesting that cooperation can and often does have quite positive effects on interpersonal and intergroup relations. Indeed, by far and way the most well-researched techniques designed to improve intergroup relations in desegregated schools are those which foster cooperation in small task-oriented learning groups. There are four such techniques which differ in a number of ways. All of these techniques have been researched in classroom settings and have books or manuals produced about them which explain their implementation. Experimental research suggests that all of these techniques have a positive effect on intergroup relations. A few of these studies suggest that cooperative work groups can improve relations between Chicano and Anglo students as well as between blacks and whites.

There is much less research on the effects of cooperation in non-academic sphere on intergroup relations than there is on the effects of the various cooperative learning techniques. Yet, two things do seem clear. First, unless schools plan carefully, extracurricular activities which provide good opportunities for cooperation may well become virtually resegregated. Second, cooperation in non-academic activities can be used effectively to foster positive intergroup relations.

Third, studies of factors relating to the support of school authorities for positive intergroup relations were examined. Holding teachers' workshops which emphasize ways of improving race relations between students is one sign of support for positive intergroup relations. One large study suggests that such workshops are effective; however, another similar study found no such effect. Research about the impact of multiethnic texts and minority hisotry also has mixed results. However, the one experimental study of multiethnic readers found that they have a marked positive impact on white elementary school children's reactions to blacks. Class discussions of race and programs designed to improve intergroup relations also show a positive relation to at least some aspect of intergroup relations, although only one or two studies have examined these practices. There is reason to think that seat assignment policies which foster intergroup contact will have a positive impact.

It is interesting, although not surprising, to note that several aspects of teachers' and principals' behavior which do not seem to be directly connected to their attitudes about intergroup relations appear to have a sizeable impact on such relations. For example, Serow and Solomon (1979) found that an emphasis on academics and on direct teacher interaction with students was negatively correlated with intergroup interaction rates. On the other hand, teachers' warmth and their acceptance of students were positively correlated with intergroup interaction. Also, Cohen (1979) suggests that principals may influence the development of intergroup relations through policies which affect the general tone of personal relations at a school.

There is very little direct information now available about the impact of various school practices or policies on intergroup relations between black and white children and their Hispanic peers. The fragmentary information available in a few specific areas suggests some important parallels between the position of blacks and Hispanics in American schools. It also gives one reason to believe that at least some of the strategies which are successful in improving black/white relations may well improve relations between Hispanic students and their black and white classmates. Yet, there are obvious and not so obvious differences between blacks and Hispanics whose implications need fuller explanation. The most obvious difference, of course, is that language forms a much greater barrier to communication between many Hispanic children and their non-Hispanic peers than it does between blacks and whites. However, there are important historical differences between black/white relations and Hispanic/Anglo relations as well as potentially important differences between different Hispanic groups (e.g. Cubans, Mexican-Americans, Puerto Ricans, etc.).

In summary, although the evidence is, in general, quite fragmented and spotty, this review has discussed a number of maleable practices and policies which research suggests may have an impact on the evolution of intergroup relations in desegregated schools. Such knowledge, taken in conjunction with an examination of the likely impact of these policies in other important outcome variables, should suggest ways in which educators can improve the education that children receive in desegregated schools.

Reference Notes

1. This review focuses almost exclusively on relations between black and white students since the vast majority of research on desegregation has been performed in biracial schools. It is clear that careful thought will be necessary in using what we know about black/white relations to develop ideas about multiethnic situations.

2. The Slavin and Madden (1979) paper is rather different from the other reviews cited here since it focuses on school practices which improve race relations and presents data rather than functioning exclusively as a review paper. However, the introductory sections of this paper provide a good overview of previous work in the area. Hence, the paper's reference section was utilized to build the core bibliography for this project.

3. Naturally, some of these reviews cited each other. These citations were ignored in building the list of core studies.

4. Since the classrooms studied ranged from 81% white to 14% white, it is hard to tell whether whites would show the tendency to in-group preference when they are a very small minority that previous research suggests blacks do. It it worth noting that although the number of white friendships with minority group students was related to the number of minority group students in the classes, white racial prejudice was not similarly effected.

5. For a discussion of some of the methodological shortcomings of this study see footnote 84 in McConahay (1978).

6. Two other factors generally considered to influence socio-economic status, income and type of occupation, do not generally seem to have a very consistent effect on racial attitudes (Campbell, 1971).

7. The Slavin and Madden study controlled for percent black in the student body, so their conclusion does not appear to be a mistaken one based upon a correlation between percent black in the student body and students' intergroup behavior.

8. Some of the practices discussed here are not under the complete control of principals and teachers. For example, if school boards refuse to appropriate money for multiethnic texts, teachers and principals can not assign these texts. However, all of the practices are ones a school system can decide to implement. The attitudes of principals and teachers are obviously not practices in any strict sense of the word. Nevertheless, it seems worth discussing the impact of these attitudes since one might be able to find ways to take such attitudes into account in hiring staff for desegregated schools.

Appendix 1

Potentially Relevant Studies Cited in Previous Reviews And Reasons for Elimination From the Present Review

Doctoral Dissertations

Barber, R. W. *The effects of open enrollment on anti-Negro and anti-White prejudices among junior high students in Rochester, New York*. Unpublished doctoral dissertation, University of Rochester, 1968. Schofield, Stephan, St. John.

M Evans, C. L. *The immediate effects of classroom integration on the academic progress, self-concept and racial attitudes of Negro elementary children*. Unpublished doctoral dissertation, North Texas State University, 1969. Stephan, St. John.

I Garth, C. E. *Self-concept of Negro students who transferred and did not transfer to formerly all-White high schools*. Unpublished doctoral dissertation, University of Kentucky, 1963. Stephan, St. John.

I Herman, B. E. *The effect of neighborhood upon the attitudes of Negro and White sixth grade children toward different racial groups*. Unpublished doctoral dissertation, University of Connecticut, 1967. Stephan, St. John.

Lachat, M. *A description and comparison of the attitudes of White high school seniors toward Black Americans in three suburban high schools: An all White, a desegregated, and an integrated school*. Unpublished doctoral dissertation, Teacher's College, Columbia University, 1972. Cohen, Schofield.

I Lewis, R. G. *The relationship of classroom racial composition to student academic achievement and the conditioning effects of inter-racial social acceptance*. Unpublished doctoral dissertation, Harvard Graduate School of Education, 1971. St. John.

Lombardi, D. N. *Factors affecting changes in attitudes toward Negroes among high school students*. Unpublished doctoral dissertation, Fordham University, 1962. Schofield, Stephan, St. John, Carithers.

McWhirt, R. A. *The effects of desegregation on prejudice, academic aspiration and the self-concept of tenth grade students*. Unpublished doctoral dissertation, University of South Carolina, 1967. Schofield, Stephan, St. John.

Seidner, J. *Effects of integrated school experience on interaction in small bi-racial groups*. Unpublished doctoral dissertation, University of Southern California, 1971. Cohen.

Singer, D. *Interracial attitudes of Negro and White fifth grade children in segregated and unsegregated schools*. Unpublished doctoral dissertation, Teachers College, Columbia University, 1966. Carithers, St. John, Cohen, Schofield.

I Taylor, C. P. Some changes in self-concept in the first year of desegregated schooling. Unpublished doctoral dissertation, University of Delaware, 1967. St. John.

M Useem, E. L. White suburban secondary students in schools with token desegregation: Correlates of racial attitudes. Unpublished doctoral dissertation, Harvard University, 1971. St. John, Cohen.

I Walker, K. D. Effects of social and cultural isolation upon the self-concepts of Negro children. Unpublished doctoral dissertation, University of Miami, Florida, 1968. St. John.

Unpublished Papers

Aaronson, S., & Noble, J. Urban-suburban school mixing: A feasibility study. Unpublished manuscript, 1966. St. John, Schofield.

Carrigan, P. M. School desegregation via compulsory pupil transfer: Early effects on elementary school children. Ann Arbor, Mich.: Ann Arbor Public Schools, September 1969. St. John.

Chesler, M., & Segal, P. Characteristics of Negro students attending previously all-White schools in the Deep South. Unpublished manuscript, University of Michigan, Institute for Social Research, September 1972. Cohen.

Coats, W. A longitudinal survey of desegregation in Kalamazoo, Michigan. Paper presented at the annual meeting of the American Psychological Association, Honolulu, September, 1972. Cohen.

Cusick, P., & Ayling, R. Racial interaction in an urban secondary school. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, February 1973. Cohen.

Fox, D. S. Free choice open enrollment--elementary schools. Unpublished manuscript, Center for Urban Education, New York, August 1966. St. John.

Gardner, B. B., Wright, B. D., & Dee, R. The effects of busing Black ghetto children into White suburban schools. Chicago: Social Research Institute, July 1970. (ERIC Document Reproduction Service No. ED 048 389). Schofield, Stephan, St. John.

Hawley, W. Teachers, classrooms, and the effects of school desegregation on effort in school: A "second generation" study. Unpublished manuscript, Duke University, Institute of Policy Sciences and Public Affairs, 1976. McConahay.

S Johnson, D. W., & Johnson, R. T. Effects of cooperation, competition, and individualism on interpersonal attraction among heterogeneous peers. Paper presented at the annual meeting of the American Psychological Association, San Francisco, 1977. Slavin-Madden.

McPartland, J. The segregated student in desegregated schools: Sources of influence on Negro secondary students (Report No. 21). Baltimore, Md.: John Hopkins University, Center for the Social Organization of Schools, 1968. St. John.

Morland, J. K. Race attitudes and racial balance in public schools: A case study of Lynchburg, Virginia. 1976. (ERIC Document Reproduction Service No. ED 131 166). McConahay.

Marascuilo, L. A. Follow-up study of student attitudes toward school reorganization of the public schools of a Northern city (Final Report). Unpublished manuscript, University of California, 1972. Cohen.

Orost, J. H. Racial attitudes among white kindergarten children from three different environments. Paper presented at the annual meeting of the American Educational Research Association, New York, February 1971. St. John.

Patchen, M., & Davidson, J. D. A summary of patterns and determinants of inter-racial interaction in the Indianapolis public high schools. Unpublished manuscript, Purdue University, 1973. St. John.

St. John, N. H. School integration research: The Pittsburgh study. Unpublished manuscript, April 1969. St. John.

St. John, N., & Lewis, R. Children's interracial friendships: An exploration of the contact hypothesis. Unpublished manuscript, University of Massachusetts, 1973. Cohen.

Schofield, J. W. To be or not to be (black). Paper presented at the annual meeting of the American Psychological Association, Chicago, September 1975. Schofield.

S Slavin, R. E. Multiracial student team instructional programs and race relations in desegregated schools. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978. Slavin-Madden, McConahay.

Walberg, H. An evaluation of an urban-suburban school busing program: Student achievement and perceptions of class learning environments. Paper presented at the annual meeting of the American Educational Research Association, New York, February 1971. (ERIC Document Reproduction Service No. ED 047 076). Cohen.

Others (Published and Large Technical Reports)

R Amir, Y. Contact hypothesis in ethnic relations. Psychological Bulletin, 1969, 71, 319-338. Cohen, Slavin-Madden.

Armor, D. J. The evidence on busing. The Public Interest, 1972, 28, 90-126. St. John, Cohen, McConahay.

S Aronson, E., Blaney, N., Sikes, J., Stephan, G., & Snapp, M. Busing and racial tension: The jigsaw route to learning and liking. Psychology Today, 1975, 8(9), 43-50.

S Berger, J., Cohen, E., & Zelditch, M. Status characteristics and expectation states. In J. Berger, M. Zelditch, & B. Anderson (Eds.), Sociological theories in progress. Boston: Houghton Mifflin, 1966. Cohen.

I Bradley, G. H. Friendship among students in desegregated schools. *Journal of Negro Education*, 1964, *33*, 90-92. Carithers.

M Bullock, C., & Braxton, M. V. The coming of school desegregation: A before and after study of Black and White student perceptions. *Social Science Quarterly*, 1973, *54*, 132. Cohen.

S Cohen, E. G. Interracial interaction disability. *Human Relations*, 1972, *25*, 9. Cohen.

S Cohen, E., Lockhead, M., & Lohman, M. Center for interracial cooperation: A field experiment. *Sociology of Education*, 1976, *49*, 47-58. Cohen.

S Cohen, E., & Roper, S. Modification of interracial interaction disability: An application of status characteristic theory. *American Sociological Review*, 1973, *37*, 643. Cohen.

R Cook, S. W. Social science and school desegregation: Did we mislead the Supreme Court? *Personality and Social Psychology Bulletin*, 1979, *5*(4), 420-437. McConahay.

Crain, R., & Weisman, C. *Discrimination, personality and achievement: A survey of northern Blacks*. New York: Seminar Press, 1972.

A Crooks, R. C. The effects of an interracial (pre-school) program upon racial preferences, knowledge of racial differences and racial identification. *Journal of Social Issues*, 1970, *26*, 137-144. Schofield, St. John, McConahay.

M Dentler, R. A., & Elkins, C. Intergroup attitudes, academic performance, and racial composition. In R. A. Dentler, B. Mackler, & M. E. Warshauer (Eds.), *The Urban R's*. New York: Praeger, 1967. Stephan, Carithers, McConahay, St. John, Schofield.

S DeVries, D. L., Edwards, K. J., & Slavin, R. E. Biracial learning teams and race relations in the classroom: Four field experiments using Teams-Games-Tournament. *Journal of Educational Psychology*, 1978, *70*, 356-362. Slavin-Madden.

I Erlanger, H. S., & Winsborough, H. H. The subculture of violence thesis: An example of a simultaneous equation model in sociology. *Sociological Methods and Research*, 1976, *5*, 231. McConahay.

C Forehand, G., Ragosta, M., & Rock, D. *Conditions and processes of effective school desegregation* (Final Report to the U.S. Office of Education, Department of Health, Education, and Welfare). Princeton, New Jersey: Educational Testing Service, 1976. McConahay, Slavin-Madden.

Gerard, H., Jackson, D., & Conolley, E. Social contact in the desegregated classroom. In H. Gerard and N. Miller, (Eds.), *School desegregation*. New York: Plenum Press, 1975.

I Gottlieb, D., & TenHouten, W. D. Racial composition and the social systems of three high schools. *Journal of Marriage and the Family*, 1965, *27*, 204-212. McConahay, St. John, Carithers.

Green, J. A., & Gerard, H. B. School desegregation and ethnic attitudes. In H. Fromkin & I. Sherwood (Eds.), Integrating the organization. New York: Free Press, 1974. Schofield, McConahay, Stephan.

U Herman, B. Interracial attitudes among 175 sixth grade students. Curriculum Leadership, 1970, 9(1), 30-35. St. John.

U Justman, J. Children's reactions to open enrollment. The Urban Review, 1968, 3, 32-34. St. John.

I Jansen, V. G., & Gallagher, J. J. The social choices of students in racial integrated classes for the culturally disadvantaged talented. Exceptional Children, 1966, 33, 222-226. Schofield.

I Kaplan, H. K., & Matkom, A. J. Peer status and intellectual functioning of Negro school children. Psychology in the Schools, 1967, 4, 181-184. McConahay, St. John.

S Koslin, S., Koslin, B., Pargament, R., & Waxman, H. Classroom racial balance and students' interracial attitudes. Sociology of Education, 1972, 45, 386-407. St. John, McConahay.

I Kurokawa, M. Mutual perceptions of racial images: White, Black, and Japanese Americans. Journal of Social Issues, 1971, 17(4), 213-235. Schofield, St. John.

I Lewis, R., & St. John, N. H. Contribution of cross-racial friendship to minority group achievement in desegregated classrooms. Sociometry, 1974, 37, 79-91. Cohen.

C National Opinion Research Center. Southern schools: An evaluation of the effects of the Emergency School Assistance program and of school desegregation (Vol. I). Chicago: The University of Chicago, National Opinion Research Center, 1973. McConahay, Slavin-Madden.

I Patchen, M., Davidson, J., Hofman, G., & Brown, W. Determinants of students' interracial behavior and opinion change. Sociology of Education, 1977, 50, 55-75. Schofield, McConahay.

I Patterson, D. L., & Smits, S. J. Reactions of inner-city and suburban adolescents to three minority groups. Journal of Psychology, 1972, 80, 127-134. Cohen, McConahay.

A Porter, J. D. R. Black child-White child. Cambridge, Ma.: Harvard University Press, 1971. St. John.

I St. John, N. H. De facto segregation and interracial association in high school. Sociology of Education, 1964, 37, 326-344. Carithers, St. John, McConahay.

I St. John, N. H., & Lewis, R. G. Race and the social structure of the elementary classroom. Sociology of Education, 1975, 48, 346-368. McConahay, St. John, Schofield.

M Schmuck, R. A., & Luzki, M. B. Black and white students in several small communities. Journal of Applied Behavioral Science, 1969, 5(2), 203-220. St. John.

S Schofield, J. W., & Sagar, H. A. Peer interaction in an integrated middle school. Sociometry, 1977, 40, 130. McConahay, Schofield.

Shaw, M. E. Changes in sociometric choices following forced integration of an elementary school. Journal of Social Issues, 1973, 29, 143. McConahay, Schofield.

Silverman, I., & Shaw, M. Effects of sudden mass school desegregation on interracial interactions and attitudes in one Southern city. Journal of Social Issues, 1973, 29, 133. McConahay, Stephan, Schofield. Cohen cites earlier APA paper version of this.

E Singer, D. Reading, writing and race relations. Trans-Action, 1967, 4(7), 27-31. Stephan.

S Slavin, R. E. Effects of biracial learning teams on cross-racial friendships. Journal of Educational Psychology, (forthcoming).

M Smith, M. B. The schools and prejudice: Findings. In C. Y. Glock & E. Siegelman (Eds.), Prejudice U.S.A. New York: Praeger, 1969. St. John.

I Stephan, W. G. Cognitive differentiation and intergroup perception. Sociometry, 1977, 40, 50-58. Stephan.

I Trubowitz, J. Changing the racial attitudes of children. New York: Praeger, 1969. Schofield.

C U.S. Commission on Civil Rights. Racial isolation in the public schools. Washington, D.C.: U.S. Government Printing Office, 1967. St. John, Cohen, Schofield.

E Useem, E. L. Correlates of white students' attitudes towards a voluntary busing program. Education and Urban Society, 1976, 8(4), 441-476. Schofield.

E Useem, E. L. White students and token desegregation. Integrated Education, 1972, 10, 46. McConahay.

M Wade, K., & Wilson, W. Relatively low prejudice in a racially isolated group. Psychological Reports, 1971, 28, 871-877. Cohen, McConahay.

Webster, S. W. The influence of interracial contact on social acceptance in a newly integrated school. Journal of Educational Psychology, 1961, 52, 292-296. Stephan, St. John, Cohen, McConahay, Schofield.

C Wellisch, J., Marcus, A., MacQueen, A., & Duck, G. An in-depth study of Emergency School Aid Act (ESAA) schools: 1974-1975. Washington, D.C.: System Development Corporation, 1976. Slavin-Madden.

I Williams, R. L., & Venditti, F. Effect of academic desegregation on Southern white students' expressed satisfaction with school. *Journal of Negro Education*, 1969, *38*, 338. (a) Cohen.

I Williams, R. L., & Venditti, F. Effect of academic integration on Southern Negro students' expressed satisfaction with school. *Journal of Social Psychology*, 1969, *79*, 203-209. (b) Cohen.

MF Williams, J. E., Best, D. L., & Boswell, D. A. The measurement of children's racial attitudes in the early school years. *Child Development*, 1975, *46*, 494-500. Stephan.

M Willie, C., & Beker, J. *Race mixing in the public schools*. New York: Praeger, 1973. Cohen.

References Published Before 1961 (Omit all in this category)

Campbell, E. Q. *The attitude effects of educational desegregation in a Southern community*. Unpublished doctoral dissertation, Vanderbilt University, 1956. St. John, Stephan.

Criswell, J. H. A sociometric study of racial cleavage in the classroom. *Archives of Psychology*, January 1939. St. John.

Deutschberger, P. Interaction patterns in changing neighborhoods: New York and Pittsburgh. *Sociometry*, 1946, *9*, 303-315. St. John, Carithers, McConahay.

Dwyer, R. J. A report on patterns of interaction in desegregated schools. *Journal of Educational Sociology*, 1958, *31*, 253-256. Carithers.

Horowitz, E. L. Development of attitude toward the Negro. *Archives of Psychology*, 1936, No. 194. Stephan.

Kupferer, H. J. An evaluation of the integration potential of a physical education program. *Journal of Educational Sociology*, 1954, *28*, 89-96. St. John.

Lundberg, G., & Dickson, L. Inter-ethnic relations in a high school population. *American Journal of Sociology*, 1952, *58*, 1-10. St. John, McConahay.

Mann, J. H. The effects of inter-racial contact on sociometric choices and perceptions. *Journal of Social Psychology*, 1959, *50*, 143-152. Schofield.

Springer, D. V. Awareness of racial differences of preschool children in Hawaii. *Genetic Psychology Monographs*, 1950, *41*, 215-270. St. John.

Whitmore, P. G. *A study of school desegregation: Attitude change and scale validation*. Unpublished doctoral dissertation, University of Tennessee, 1956. Stephan.

Yarrow, M. R., Campbell, J. D., & Yarrow, L. J. Acquisition of new norms: A study of racial desegregation. *Journal of Social Issues*, 1958, *14*(1), 8-28. St. John.

Appendix 2

Items Added to the Potential Core Literature on the Basis of the Searches in Psychological Abstracts, Sociological Abstracts, and ERIC

C Acland, H. Secondary analysis of the Emergency School Assistance Program. Santa Monica, Calif.: Rand Corporation, 1975. (ERIC Document Reproduction Service No. ED 124 672)

S Hansell, S., & Slavin, R. E. Cooperative learning and interracial friendships (Report No. 285). Baltimore, Md.: The Johns Hopkins University, Center for the Social Organization of Schools, September 1979.

C Koslin, S., Koslin, B. L., & Pargament, R. Efficacy of school integration policies in reducing racial polarization. New York: Riverside Research Institute, 1972. (ERIC Document Reproduction Service No. ED 068 610)

C Olson, G. E. The relationship of student racial prejudice to a variety of classroom dimensions in sixteen racially mixed classes. Chicago: Roosevelt University, 1977. (ERIC Document Reproduction Service No. ED 139 884)

S Riordan, C., & Ruggiero, J. A. Producing equal-status interracial interaction: A replication. Social Psychology Quarterly, 1980, 43(1), 131-136.

C Rosenfield, D., Sheehan, D., Marcus, M., & Stephan, W. Classroom structure and prejudice in desegregated schools. Paper presented at the annual meeting of the American Psychological Association, New York, 1979.

Schofield, J. W. The impact of positively structured contact on intergroup behavior: Does it last under adverse conditions? Social Psychology Quarterly, 1979, 42(3), 280-284.

I Serow, R. C. Classroom structure and the socialization of tolerance. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

S Slavin, R. E., & Karweit, N. L. An extended cooperative learning experience in elementary school (Report No. 290). Baltimore, Md.: The Johns Hopkins University, Center for the Social Organization of Schools, December 1979.

S Slavin, R. E., & Oickle, E. Effects of learning teams on student achievement and race relations in a desegregated middle school. Paper presented at the annual meeting of the American Educational Research Association, Boston April 1980.

References

Acland, H. Secondary analyses of the Emergency School Assistance Program. Santa Monica, Calif.: Rand Corporation, 1975. (ERIC Document Reproduction Service No. ED 124 672.)

Allport, G. W. The nature of prejudice. Cambridge, Mass.: Addison-Wesley, 1954.

Amir, Y. The role of intergroup contact in change of prejudice and ethnic relations. In P. A. Katz (Ed.), Towards the elimination of racism. New York: Pergamon Press, Inc., 1976.

Amir, Y., Sharan, S., Bizman, A., Rivner, M., & Ben-Ari, R. Attitude change in desegregated Israeli high schools. Journal of Educational Psychology, 1978, 70(2), 129-136.

Armor, D. J. The evidence on busing. Public Interest, 1972, 28, 90-126.

Aronson, E., Blaney, N., Stephan, C., Sikes, J., & Snapp, M. The jigsaw classroom. Beverly Hills, Calif.: Sage Publishers, 1978.

Barber, R. W. The effects of open enrollment on anti-Negro and anti-White prejudices among junior high students in Rochester, New York. Unpublished doctoral dissertation, University of Rochester, 1968.

Berger, J., Cohen, E., & Zelditch, M. Status characteristics and expectation states. In J. Berger, M. Zelditch & B. Anderson (Eds.), Sociological theories in progress. Boston: Houghton Mifflin, 1966.

Berger, J., Cohen, E., & Zelditch, M. Status conceptions and social interaction. American Sociological Review, 1972, 37, 241-255.

Blanchard, F. A., Adelman, L., & Cook, S. W. The effect of group success and failure upon interpersonal attraction in cooperating interracial groups. Journal of Personality and Social Psychology, 1975, 31, 1020-1030.

Blanchard, F. A., & Cook, S. W. The effects of helping a less competitive group member of a cooperating interracial group on the development of interpersonal attraction. Unpublished manuscript, Smith College, 1976.

Blanchard, F. A., Weigel, R., & Cook, S. W. The effect of relative competence of group members upon interpersonal attraction in cooperating interracial groups. Journal of Personality and Social Psychology, 1975, 32, 519-530.

Blaney, N. T., Stephen, C., Rosenfield, D., Aronson, E., & Sikes, J. Interdependence in the classroom: A field study. Journal of Educational Psychology, 1977, 69(2), 121-128.

Byrne, D. The attraction paradigm. New York: Academic Press, 1971.

Byrne, D., & Buehler, J. A. A note on the influence of propinquity upon acquaintanceships. Journal of Abnormal Social Psychology, 1955, 51, 147-148.

Campbell, A. White attitudes toward black people. Ann Arbor, Mich: University of Michigan, Institute for Social Research, 1971.

Carbonari, J. P., & Birenbaum, V. Evaluation of a panel of American women project to reduce prejudicial attitudes in high school students. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Carithers, M. W. School desegregation and racial cleavage, 1954-1970: A review of the literature. Journal of Social Issues, 1970, 26(4), 25-47.

Clark, K. B. Just teach them to read. New York Times Magazine, March 18, 1973, p. 71.

Cohen, E. Interracial interaction disability. Human Relations, 1972, 25(1), 9-24.

Cohen, E. The effects of desegregation on race relations. Law and Contemporary Problems, 1975, 39(2), 271-299.

Cohen, E. The desegregated school: Problems in status power and interracial climate. Paper presented at the annual meeting of the American Psychological Association, New York, September 1979.

Cohen, E. G. Design and redesign of the desegregated school: Problems of status, power, and conflict. In W. G. Stephan & J. R. Feagin (Eds.), School desegregation. New York: Plenum Press, 1980.

Cohen, E., & Roper, S. Modification of interracial interaction disability: An application of status characteristics theory. American Sociological Review, 1972, 36, 643-657.

Collins, T. W. From courtrooms to classrooms: Managing school desegregation in a Deep South high school. In R. C. Rist (Ed.), Desegregated schools. New York: Academic Press, 1979.

Cook, S. W. Motives in a conceptual analysis of attitude-related behavior. In W. J. Arnold & D. Levine (Eds.), Nebraska Symposium on Motivation (Vol. 17). Lincoln, Neb.: University of Nebraska Press, 1969.

Cooper, M. Personal communication, March 1980.

Cooper, H. M., & Rosenthal, R. Statistical versus traditional procedures for summarizing research findings. Psychological Bulletin, 1980, 87, 426-433.

Cooper, L., Johnson, D. W., Johnson, R., & Wilderson, F. The effects of cooperation, competition, and individualization on cross-ethnic, cross-sex, and cross-ability attitudes and achievement. Unpublished manuscript, University of Minnesota, 1977.

Crain, R. L. Racial tension in high schools. Pushing the survey method closer to reality. Anthropology and Education Quarterly, May 1977, pp. 142-151.

Crain, R. L., & Mahard, R. Desegregation and black achievement: A review of the research. Law and Contemporary Problems, 1978, 42(3), 17-56.

Crain, R. L., & Weisman, C. Discrimination, personality and achievement: A survey of northern Blacks. New York: Seminar Press, 1972.

Cusick, P., & Ayling, R. Racial interaction in an urban secondary school. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, February 1973.

Davidson, J. D., Hofmann, G., & Brown, W. R. Measuring and explaining high school interracial climates. Social Problems, 1978, 26, 50-71.

DeVries, D. L., & Edwards, K. J. Learning games and student teams: Their effects on classroom process. American Educational Research Journal, 1973, 10, 307-318.

DeVries, D. L., Edwards, K. J., & Wells, E. H. Team competition effects on classroom group process (Report No. 174). Baltimore, Md.: Johns Hopkins University, Center for Social Organization of Schools, 1974.

Edwards, K. J., & DeVries, D. L. The effects of Teams-Games-Tournament and two structural variations on classroom process, student attitudes, and student achievement (Report No. 174). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, 1974.

Edwards, K. J., DeVries, D. L., & Snyder, J. P. Games and teams: A winning combination. Simulation and Games, 1972, 3, 247-269.

Forehand, G., Ragosta, M., & Rock, D. Conditions and processes of effective school desegregation (Report No. PR-76-23). Princeton, N.J.: Educational Testing Service, 1976.

Francis, W., & Schofield, J. W. The impact of race on interaction in a desegregated school. Paper presented at the annual meeting of the American Sociological Association, Montreal, August 1980.

Gay, G. Multicultural preparation and teacher effectiveness in desegregated schools. Theory into Practice, 1978, 17(2), 149-156.

Geffner, R. A. The effects of interdependent learning on self-esteem, interethnic relations, and intra-ethnic attitudes of elementary school children: A field experiment. Unpublished doctoral dissertation, University of California at Santa Cruz, 1978.

Genova, W. J., & Walberg, H. A practitioner's guide for achieving student integration in city high schools. Washington, D.C.: National Institute of Education, 1980.

Gerard, H., Jackson, D., & Conolley, E. Social contact in the desegregated classroom. In H. Gerard & N. Miller (Eds.), School desegregation. New York: Plenum Press, 1975.

Gerard, H., & Miller, N. School desegregation: A long-range study. New York: Plenum Press, 1975.

180 A

Goldman, P. Report from Black America. New York: Simon & Schuster, 1970.

Gonzales, A. Classroom cooperation and ethnic balance. Paper presented at the annual meeting of the American Psychological Association, New York City, September 1979.

Green, J. A., & Gerard, H. B. School desegregation and ethnic attitudes. In H. Fromkin & I. Sherwood (Eds.), Integrating the organization. New York: Free Press, 1974.

Hawley, W. D. Increasing the effectiveness of desegregated schools: Lessons from the research. Unpublished manuscript, Duke University, Center for Educational Policy, 1980.

Jacobson, C. Separatism, integrationism, and avoidance among Black, White, and Latin adolescents. Social Forces, 1977, 55, 1011-1027.

Jansen, V. G., & Gallagher, J. J. The social choices of students in racially integrated classes for the culturally disadvantaged talented. Exceptional Children, 1966, 33, 222-226.

Jencks, C., Smith, M., Acland, H., Bane, M. J., Cohen, D., Gintis, H., Heyns, B., & Michelson, S. Inequality. New York: Basic Books, 1972.

Johnson, E., Gerard, H., & Miller, N. Teacher influences in the desegregated classroom. In H. Gerard & N. Miller (Eds.), School desegregation. New York: Plenum Press, 1975.

Kagan, S. Social motives and behaviors of Mexican-American and Anglo-American children. In Chicano psychology. New York: Academic Press, 1977.

Kagan, S. Cooperation in the classroom: Cultural and situational sources of variance. In S. Sharan, P. Hare, C. Webb, & R. Lararowitz (Eds.), Cooperation in education: Interdisciplinary perspectives. Provo, Utah: Brigham Young University Press, (forthcoming).

Katz, I. Review of evidence relating to effects of desegregation on the performance of Negroes. American Psychologist, 1964, 19, 381-399.

Knight, G. P., & Kagan, S. Development of prosocial and competitive behaviors in Anglo-American and Mexican-American children. Child Development, 1977, 48, 1385-1394. (a)

Knight, G. P., & Kagan, S. Acculturation of prosocial and competitive behaviors among second- and third-generation Mexican-American children. Journal of Cross-Cultural Psychology, 1977, 8, 273-284. (b)

Koslin, S., Amarel, M., & Ames, N. A distance measure of racial attitudes in primary grade children: An exploratory study. Psychology in the Schools, 1969, 6, 382-385.

Koslin, S., Koslin, B. L., & Pargament, R. Efficacy of school integration policies in reducing racial polarization. New York: Riverside Research Institute, 1972. (ERIC Document Reproduction Service No. ED 068 610.)

Koslin, S., Koslin, B., Pargament, R., & Waxman, H. Classroom racial balance and students' interracial attitudes. Sociology of Education, 1972, 45, 386-407.

Kramer, B. M. Residential contact as a determinant of attitudes towards Negroes. Unpublished doctoral dissertation, Harvard University, 1950.

Lachat, M. A description and comparison of the attitudes of white high school seniors towards black Americans in three suburban high schools: An all white, a desegregated and an intergrated school. Unpublished doctoral dissertation, Columbia University, Teachers' College, 1972.

Lessing, E. E., & Clarke, C. C. An attempt to reduce ethnic prejudice and assess its correlates in a junior high school sample. Educational Research Quarterly, 1976, 1(2), 3-16.

Litcher, J. H., & Johnson, D. W. Changes in attitudes toward Negroes of white elementary school students after use of multiethnic readers. Journal of Educational Psychology, 1969, 60(2), 148-152.

Lombardi, D. N. Factors affecting changes in attitudes toward Negroes among high school students. Unpublished doctoral dissertation, Fordham University, 1962.

Madsen, M. C., & Shapiro, A. Cooperative and competitive behavior of urban Afro-American, Anglo-American, Mexican-American, and Mexican village children. Developmental Psychology, 1970, 3(1), 16-20.

Maruyama, G., & Miller, N. Does popularity cause achievement?: A test of the lateral transmission of values hypothesis. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

McClintock, C. Development of social motives in Anglo-American and Mexican children. Journal of Personality and Social Psychology, 1974, 29, 348-354.

McConahay, J. The effects of school desegregation upon students' racial attitudes and behavior: A critical review of the literature and a prolegomenon to future research. Law and Contemporary Problems, 1978, 42(3), 77-107.

McConahay, J. Reducing prejudice in desegregated schools. Paper presented at the meeting of the National Panel on School Desegregation Research, Key West, October 1979.

McWhirt, R. A. The effects of desegregation on prejudice, academic aspiration and the self-concept of tenth grade students. Unpublished doctoral dissertation, University of South Carolina, 1967.

National Institute of Education. Violent schools - safe schools: The safe school study report to the Congress (Vol. 1). Washington, D.C.: U.S. Government Printing Office, 1978.

National Opinion Research Center. Southern schools: An evaluation of the effects of the Emergency School Assistance Program and of school desegregation (Vol. 1). Chicago: University of Chicago, The National Opinion Research Center, 1973.

Nelson, E. A., & Uhl, N. P. *The influence of racial composition of desegregated secondary schools upon black students' perceptions of the school climates.* Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1976. (ERIC Document Reproduction Service No. ED 123 316)

Newcomb, T. M. *The acquaintance process.* New York: Holt, Reinhart and Winston, 1961.

Noblit, G. Patience and prudence in a southern high school: Managing the political economy of desegregated education. In R. C. Rist (Ed.), *Desegregated schools.* New York: Academic Press, 1979.

Nunn, C., Crockett, H., & Williams, J. A. *Tolerance for non-conformity.* San Francisco: Jossey-Bass, 1978.

Olson, G. E. *The relationship of student racial prejudice to a variety of classroom dimensions in sixteen racially mixed classes.* Chicago: Roosevelt University, 1977. (ERIC Document Reproduction Service No. ED 139 884).

Patchen, M. *Black-white contact in schools: Its social and academic effects.* West Lafayette, In.: Purdue University Press, (forthcoming).

Patchen, M., Davidson, J., Hofmann, G., & Brown, W. *A summary of patterns and determinants of interracial interaction in the Indianapolis public high schools.* Lafayette, Ind.: Purdue University, 1973. (ERIC Document Reproduction Service No. ED 095 252)

Patchen, M., Hofmann, G., & Davidson, J. Interracial perceptions among high school students. *Sociometry*, 1976, *39*, 341-354.

Pettigrew, T. Social evaluation theory: Convergences and applications. In D. Levine (Ed.), *Nebraska Symposium on Motivation* (Vol. 15). Lincoln, Neb: University of Nebraska Press, 1967.

Pettigrew, T. F. Rejoinder on racially separate or together. *Journal of Social Issues*, 1969, *25*(4), 201-205.

Read, F. Judicial evolution of the law of school integration since Brown v. Board of Ed. *Law and Contemporary Problems*, 1975, *39*(1), 7-49.

Riordan, C., & Ruggiero, J. A. Producing equal-status interracial interaction: A replication. *Social Psychology Quarterly*, 1980, *43*(1), 131-136.

Rist, R. *The invisible children.* Cambridge, Mass.: Harvard University Press, 1978.

Robbins, A. E. *Fostering equal-status interaction through the establishment of consistent staff behaviors and appropriate situational norms.* Paper presented at the annual meeting of the American Educational Research Association, New York, April 1977.

Roberts, B. J. *Minority racial status, social marginality and social contact.* Unpublished manuscript, University of Florida at Gainesville, Department of Psychology, 1980.

Rosenberg, M., & Simmons, R. Black and white self-esteem: The urban school child. Washington, D.C.: American Sociological Association, 1971.

Rosenfield, D., Sheehan, D., Marcus, M., & Stephan, W. G. Classroom structure and prejudice in desegregated schools. Journal of Educational Psychology, 1981, 73(1), 17-26.

Sagar, H. A., & Schofield, J. W. Patterns of interracial behavior (Final Report NIE Contract No. G-78-0126). Unpublished manuscript, 1980. (Available from J. Schofield, Psychology Department, University of Pittsburgh, Pittsburgh, PA 15260.)

Sagar, H. A., & Schofield, J. W. Integrating the desegregated school: Perspectives, practices, and possibilities. In M. Wax (Ed.), When schools are desegregated. Rutgers, New Jersey: Transaction Press, (forthcoming).

St. John, N. H. De facto segregation and interracial association in high school. Sociology of Education, 1964, 37, 326-344.

St. John, N. H. School desegregation: Outcomes for children. New York: Wiley, 1975.

St. John, N., & Lewis, R. Race and the social structure of the elementary classroom. Sociology of Education, 1975, 48, 346-368.

Schacter, S. Deviation, rejection and communication. Journal of Abnormal and Social Psychology, 1951, 46, 120-207.

Scherer, J., & Slawski, E. J. Coping with desegregation: Individual strategies and organizational compliance. In M. Wax (Ed.), When schools are desegregated. Rutgers, N.J.: Transaction Press, (forthcoming).

Schofield, J. W. Social process and peer relations in a "nearly integrated" middle school (Final Report NIE Contract No. 400-76-0011). Unpublished manuscript, 1977. (Available from J. Schofield, Psychology Department, University of Pittsburgh, Pittsburgh, PA 15260.)

Schofield, J. W. School desegregation and intergroup relations. In D. Bar-Tal and L. Saxe (Eds.), Social psychology of education: Theory and research. Washington, D.C.: Hemisphere Press, 1978.

Schofield, J. W. The impact of positively structured contact on intergroup behavior: Does it last under adverse conditions? Social Psychology Quarterly, 1979, 42, 280-284.

Schofield, J. W. Barriers to intergroup cooperation: The impact of unequal resources and in-group preference on task-oriented behavior. In S. Sharan, P. Hare, C. Webb, & R. Lazarowitz (Eds.), Cooperation in education: Interdisciplinary perspectives. Provo, Utah: Brigham Young University Press, 1980.

Schofield, J. W. Behind closed doors: Race relations in an American school. New York: Praeger, (forthcoming).

Schofield, J. W., & McGivern, E. P. Creating interracial bonds in a desegregated school. In R. G. Blumberg & W. J. Roye (Eds.), Interracial bonds. Bayside, N.Y.: General Hall, Inc., 1979.

Schofield, J. W., & Sagar, H. A. Peer interaction patterns in an integrated middle school. Sociometry, 1977, 40(2), 130-138.

Schofield, J. W., & Sagar, H. A. Unplanned social learning in an interracial school. In R. C. Rist (Ed.), Inside desegregated schools. San Francisco: Academic Press, 1979.

Seidner, J. Effects of integrated school experience on interaction in small bi-racial groups (Doctoral dissertation, University of Southern California, 1971). Dissertation Abstracts International, 1971, 32, 569A. (University Microfilms No. 71-16, 430)

Selznick, G., & Steinberg, S. The tenacity of prejudice. New York: Harper & Row, 1969.

Serow, R. C., & Solomon, D. Classroom climates and students' intergroup behavior. Journal of Educational Psychology, 1979, 71(5), 669-676.

Shaw, M. E. Changes in sociometric choices following forced integration of an elementary school. Journal of Social Issues, 1973, 29(4), 143-157.

Silverman, I., & Shaw, M. E. Effects of sudden mass school desegregation on interracial interaction and attitudes in one southern county. Journal of Social Issues, 1973, 29(4), 133-142.

Singleton, L. C., & Asher, S. R. Peer preferences and social interaction among third-grade children in an integrated school district. Journal of Educational Psychology, 1977, 69, 330-336.

Slavin, R. E. How student learning teams can integrate the desegregated classroom. Integrated Education, 1977, 15(6), 56-58.

Slavin, R. E. Multicultural student team instructional programs and race relations in desegregated schools. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Slavin, R. E. Cooperative learning. Review of Educational Research, 1980, 50(2), 315-342.

Slavin, R. E., & Karweit, N. L. An extended cooperative learning experience in elementary school (Report No. 290). Baltimore, Md.: The Johns Hopkins University, Center for the Social Organization of Schools, December 1979.

Slavin, R. E., & Madden, N. School practices that improve race relations. American Educational Research Journal, 1979, 16(2), 169-180.

Slavin, R. E., & Oickle, E. Effects of learning teams on student achievement and race relations in a desegregated middle school. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Stephan, W. G. Cognitive differentiation and intergroup perception. Sociometry, 1977, 40, 50-58.

Stephan, W. G. School desegregation: An evaluation of predictions made in Brown v. Board of Education. Psychological Bulletin, 1978, 85, 217-238.

System Development Corporation. Human relations study: Investigations of effective human relations strategies (Technical Report, Vol. II). Santa Monica, Calif.: System Development Corporation, June 1980.

Tomlinson, T. M., & TenHouten, D. System awareness: Exploitive potential and ascribed status of cities. Paper presented at the annual meeting of the American Psychological Association, Montreal, September 1972.

Towson, S. Unpublished thesis proposal. University of Waterloo, March 1980.

U.S. Commission on Civil Rights. Racial isolation in the public schools. Washington, D.C.: U.S. Government Printing Office, 1967.

Weigel, R. H., Wiser, P. L., & Cook, S. W. The impact of cooperative learning experiences on cross-ethnic relations and attitudes. Journal of Social Issues, 1975, 31(1), 219-245.

Weinberg, M. Minority students: A research appraisal (Department of Health, Education, and Welfare, National Institute of Education). Washington, D.C.: U.S. Government Printing Office, March 1977.

Wellisch, J. B., Marcus, A., MacQueen, A., & Duck, G. An in-depth study of Emergency School Aid Act (ESAA) schools: 1974-1975 (U.S. Office of Education, Department of Health, Education and Welfare). Washington, D.C.: System Development Corporation, 1976.

White, R. Sense of interpersonal competence: Two case studies and some reflections on origins. In R. White (Ed.), The study of lives. New York: Atherton Press, 1968.

Willie, C. V., & Becker, J. Race mixing in the public schools. New York: Praeger, 1973.

Willie, C. V., & McCord, A. S. Black students in white colleges. New York: Praeger, 1972.

Wisdom, J. Random remarks on the role of social sciences in the judicial decision-making process in school desegregation cases. Law and Contemporary Problems, 1975, 39(1), 135-149.

Worchel, S. Cooperation and the reduction of intergroup conflict: Some determining factors. In W. G. Austin, & S. Worchel (Eds.), The social psychology of intergroup relations. Monterey, Calif.: Brooks/Cole Publishing Company, 1979.

CHAPTER III

SOME POLICY IMPLICATIONS OF THE DESEGREGATION-MINORITY ACHIEVEMENT LITERATURE

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Introduction

This paper reviews a particular portion of the school desegregation literature--the studies of the affect of school desegregation on minority achievement. These studies look at the achievement test performance of minority students after a school system has been desegregated. The studies are usually small unpublished studies dealing with a single city. These are, of course, not the only kinds of studies which can contribute to our knowledge of how desegregation works and how it can work better. Indeed, almost any laboratory or classroom study of student learning contributes valuable information about how to make desegregated schools more effective. However, these studies are unique in their ability to test hypotheses about the relative effectiveness of different kinds of desegregation plans. A study in a single city cannot do this, since normally there is only one kind of desegregation plan present; but if we bring together a large number of these studies, using each one as an evaluation of a certain kind of desegregation, we can draw some overall conclusions.

There is another literature which can also be useful. These are the large scale national studies based on simultaneous achievement testing in a large number of schools. The Coleman Report (Coleman, et al., 1965) is the best known of these, but there are several others, and one book has attempted to pool the conclusions from all these studies (Bridge, Judd, and Moock, 1978). These large-scale studies can be used to compare the performance of minority students in various kinds of segregated and racially mixed schools. However, they have an important drawback: They pool together racially mixed schools which are newly desegregated with those that are "naturally" integrated--meaning that they have served an integrated or two adjoining segregated neighborhoods for a long time, and the students have not gone through the experience of a formal desegregation plan. Does this make a difference? We don't know, but until we do we must be cautious about assuming that the large-scale studies will tell us useful things about how to operate a desegregation plan. With that caveat, let us consider the two main findings which have appeared consistently in these studies. First, minority students in predominantly anglo schools score higher on achievement tests. Secondly, this seems to be a result not of the "whiteness" of the school but because predominantly white schools have a student body with a higher socioeconomic status. These two findings suggest that the best desegregation plan is one which creates predominantly white schools using white students from relatively affluent families. Two studies found a slightly different pattern, and their findings are worth consideration. The first by Winkler (1976) found that black students who came from segregated elementary schools into predominantly white junior high schools did not experience a gain in achievement; there were gains only for those desegregated in elementary school. A second study (National Opinion Research Center, 1973) found that in newly desegregated southern high schools, achievement tended to be lower in schools where blacks made up less than 20 percent of the student body. Black male students had especially low scores in these schools. We shall see that both of these findings are consistent with the literature we review here.

Finally, we can draw upon studies made of individual students in desegregated situations. Two recent studies (Patchen, et al., 1980; Gerard and Miller, 1980) make important negative contributions, by failing to support one popular theory of desegregation's effects: the theory that black students benefit from the "lateral transmission" of values or behavioral norms from white students. Both studies show that actual personal contact with white students in desegregated schools is irrelevant to achievement performance. If black students were somehow learning better study habits or developing more achievement-oriented values from associating with whites, then we would expect achievement gains to be greater for those with white friends. This is not what these two studies found. By seeming to refute this line of argument, these papers bring an alternative hypothesis to the forefront: the teacher expectation theory of desegregation. This theory, derived from the work of Rosenthal and Jacobson (1968) argues that students perform better when teachers have higher expectations about their ability to learn. This suggests that the predominantly middle class desegregated school benefits black students because the teachers pace their teaching to what they see as the average level in the class--which will be higher than the level they would expect if they were teaching in an all-black school. Another line of research has implications for desegregation policy. Several studies (Forehand, Ragosta, and Rock, 1976; Coulson, et al., 1977; Crain, Mahard, and Narot, forthcoming) all show that black achievement is higher in schools where staff racial attitudes and the overall racial climate of the classroom is more positive. This implies that certain kinds of desegregation plans may lead to enhanced achievement by creating more favorable racial situations. Thus it seems that existing theory suggests that there should be differences in the effectiveness of different kinds of desegregation plans. It is the purpose of this paper to begin searching for evidence that this is the case.

Sample of Studies

The small-scale studies of minority achievement after desegregation constitute a fugitive literature. Very few of the studies are published in journals or books. Many are unpublished doctoral dissertations, obtained through University Microfilms; others are reports of school system evaluations, or papers read at the American Educational Research Association meetings, and were identified using the ERIC retrieval system. After a lengthy search, we located 93 studies which measured the impact of desegregation on minority achievement.[1] Nearly all of these studies dealt only with black students, so that we had to make a special effort to look at the effects of desegregation on hispanic students. We excluded a large number of papers. Many of these were papers which compared students in racially segregated and racially mixed schools, but with no indication that a formal desegregation plan had been put in place. We judged that these studies would tell us little that the more sophisticated large-scale studies like the Coleman Report had not already shown. We also dropped a number of studies where research design does not meet a minimum standard of quality. For example, we discarded studies which simply compared the achievement of black students in desegregated schools with black students in segregated schools with no reasonable effort to verify that the two students were of similar background or had similar test scores prior to desegregation.

The 93 studies were a very mixed bag, and their results were equally mixed. Following a procedure suggested by Glass (1978) for meta-analyses, we divided the 93 studies into 323 samples of students. If a research project studied several samples of students--who differed in age, or in the research method used to measure the effect of desegregation on them, these were treated as separate samples. Slightly over half of the samples showed an increase in achievement after desegregation, while the remainder were divided between samples which showed no change and samples which lost ground. It is important to keep in mind that the point of all these studies is to measure the effect of desegregation, meaning the difference between the achievement of desegregated minority students and the achievement that those same students would have had had they attended segregated schools. This must necessarily be a hypothetical question, which can be answered only by inference, since no student can possibly be simultaneously desegregated and segregated. The question of how to most accurately draw this inference has plagued the desegregation research for the past decade. The first review of this literature, and the impetus for all the work since then, was by St. John (1975). While she found that more studies showed desegregation improving achievement than not, she nevertheless concluded that the quality of the studies was too uncertain, and the results too mixed, to make a definitive conclusion. Weinberg (1977) reviewing nearly the same set of studies was less cautious and concluded that desegregation did raise achievement. Bradley and Bradley (1977) reviewed a small number of these same studies and concluded that there were so many methodological problems that it was impossible to draw any conclusion about the effects of desegregation. More recently Krol (1978) conducted a meta-analysis patterned after the work of Glass, and found a general positive effect of desegregation. In an earlier paper, we reviewed 41 studies and came to the same general conclusion--that desegregation tended to raise achievement test scores. However, all these papers have been forced to dwell at length on various problems created by the different kinds of methodologies used.

In assessing the methodology of a study we must ask two general questions: first, are the desegregated students typical of students experiencing desegregation; second, how can one best estimate what their achievement performance would have been in the absence of desegregation? Many of the students we reviewed had problems with both of these issues. Most studies of desegregation were done almost immediately after the desegregation plan was put into effect. This meant that the students were not representative of graduates of desegregated schools--they were still in school in nearly every case, and in a number of cases they began desegregation not at kindergarten or first grade but after they had already attended segregated schools. Thus their experience is not representative of a future cohort of students who would experience 12 or 13 years of desegregation by the end of high school. Many critics have commented about the unfairness of evaluating desegregation prematurely, when the students have only experienced one or two years in desegregated schools. However, critics have not paid attention to the other side of that issue--the fact that many of these students began desegregated schooling after first attending segregated schools. The problem of choosing a comparison group is sometimes very difficult. In many communities every school is desegregated, so that no minority students remain in segregated schools to serve as a comparison group for the desegregated students. In this circumstance there are a variety of makeshift solutions, none of them completely satisfactory. Even when some segregated schools remain, the problem of deciding whether the segregated and desegregated minority students are truly similar is a difficult one. If one of the two groups comes from a more affluent background, their test scores will normally be higher. Statistical procedures to correct for this bias are inadequate.

Our first task was to attempt to separate the genuine effects of desegregation from the false effects created by the methodological decisions made in an effort to deal with these two general issues.[2] To determine the bias introduced by incomplete treatments, we recorded a variety of dates--when the students were desegregated, when they were post-tested and if the design was longitudinal, when they were pre-tested. From this we could determine the number of years in segregated schools before beginning desegregation and the duration of desegregation at the time achievement effects were estimated. We found that we could separate the studies into seven general categories according to the type of methodology used to create a comparison between desegregated and segregated black students. We then ranked the seven strategies according to our best judgement about their relative effectiveness:

Group 1. The best design is a randomized experiment--when desegregated and segregated students are selected by a flip of the coin, guaranteeing that there could be no differences between the two groups (other than that which might occur by a statistical fluke analogous to having a coin come up heads many times in a row).

Groups 2 and 3. The next best designs use a group of segregated black students as a control group, but without randomly assigning some students to desegregated and others to segregated schools. All of these studies pretested the desegregated and segregated students before or simultaneously with desegregation in order to show that they began with roughly equal achievement levels (or to statistically correct for differences if they were present). We divided control group studies into two categories because some of them went one step further, and described the desegregation plan in such a way that the reader could conclude that the desegregated students were not chosen because they wanted to be reassigned, or because they appeared to be better candidates for desegregation, but because of an arbitrary geographic pattern which seemed to preclude much chance of a strong difference between these students and those left out of the plan. (Another example: some volunteers for desegregation were compared with students who volunteered for desegregation too late to be accepted, on the assumption that these students were similar in their motivation.) The studies which did not explain why some students were desegregated rather than others were placed in a third category.

Group 4. Cross-sectional studies with segregated black student control groups. In a very small number of studies a black control group was used without a pre-test to demonstrate that their scores were similar to those of desegregated students before the plan took effect. Most of these studies were dropped from our analysis, but a few were kept where there was some evidence of similarity between the two groups.

If a randomized experiment provides the best estimate of the effects of desegregation, these inferior designs provide estimates which have more error, either overestimating or underestimating the effects of desegregation. This is a serious problem, but the problems that arise if there are no segregated black students to use as a control are even more serious. The next three designs not only introduce error into our estimate of the effects of desegregation, but they introduce a systematic negative bias--all three designs tend to underestimate the effects of desegregation.

Group 5. Cohort designs. In cases where all black students are desegregated, the best option is to simply compare the performance of desegregated black students to the performance of black students in the same grade a few years earlier. Unless there has been a drastic population shift in the community, these students should come from the same sort of family backgrounds.

However, there has been a steady decline in achievement test scores in the United States over the last 15 years. This decline, if it occurs in a desegregated community, will make desegregation appear to have a negative effect.

Group 6. When all black students are desegregated, one option is to compare the performance of black students to the performance of white students in the same community. The achievement of white students is of course an inadequate proxy for the performance of blacks. Worse yet, during the later elementary school years, when many of these studies were done, there normally is an increase in the "gap" between white and black scores. Thus a study of desegregated black students might find that in the third grade before desegregation they were a certain distance behind white students and this distance had increased after desegregation when the students were in the sixth grade. This normal increase in the gap would thus be misread as evidence that desegregation had lowered achievement.

Group 7. Finally, the researcher may choose to simply compare the performance of black students to the national norms on the achievement test being used. But again, black students in later elementary school years can be expected to fall further behind the test norms, making it appear that desegregation had lowered achievement.

For each of the 323 samples under study, we recorded the age of the students at desegregation and the dates of pre-testing and post-testing and also recorded the type of control group design used. Multiple regression equations were then constructed in order to estimate the effects of these factors. We found that the duration of desegregation made no difference. Students who had experienced four years of desegregation did not show a stronger effect of desegregation than those desegregated only one or two years. This was a very surprising conclusion. We also found that the age at which desegregation began made a very important difference. We found 11 samples of students who were desegregated at kindergarten and found the effects of desegregation to be positive in every case. At the other extreme, when students were desegregated for the first time in secondary school less than half of the samples showed positive effects of desegregation. It appears that the beneficial effects of desegregation take place during the very earliest primary school grades, and students who are desegregated after that time inadequately represent the true effects of desegregation. Thus when grade of desegregation was entered into a regression equation in an effort to predict the effect of desegregation on achievement, we found that the lower the grade of first desegregation, the higher the achievement effect. We also found, as expected, that the type of study design was significantly related to outcome. Those studies which used white students or test norms as a proxy for segregated black student achievement found much weaker effects of desegregation. At the other extreme desegregation plans that were studied using a randomized experiment showed stronger effects of desegregation. Both grade at initial desegregation and type of design were significantly related to the outcome. Table 1 shows the percentage of studies that yielded positive results at each grade of initial desegregation and with each type of design. To simplify the table we have collapsed the two non-random longitudinal designs with black control groups, combined the small number of cross sectional studies with the cohort designs and collapsed studies that used white student achievement as a control group with those that used test norms. All 11 studies conducted of students desegregated at kindergarten show positive effects of desegregation. Similarly, a high percentage of the studies of students desegregated in first grade show favorable results. In general, the studies that used randomized experiments were somewhat more likely to find positive results in the upper elementary school grades, and the norm-referenced studies were least likely to find positive results. At the extreme, none of the eight studies using white or test norm controls of students desegregated in secondary school show positive desegregation effects.

Table 1

THE PROPORTION OF STUDIES SHOWING POSITIVE DESEGREGATION OUTCOMES, BY GRADE AT WHICH STUDENTS WERE DESEGREGATED AND TYPE OF RESEARCH DESIGN

Type of Design	Grade of Desegregation					Raw Average
	K	1	2-3	4-6	7+	
Random experimental	100%(1)	100%(8)	71%(7)	60%(5)	—	81%(21)
Longitudinal	100%(2)	73%(11)	46%(46)	62%(39)	69%(29)	59%(127)
Cohort comparison	100%(5)	78%(23)	56%(25)	40%(37)	45%(11)	56%(101)
Norm-referenced	100%(3)	0%(2)	43%(14)	37%(19)	0%(8)	35%(46)
Column average	100%(11)	77%(44)	50%(92)	49%(100)	52%(48)	56%(295)

Having established that the methodology used affected the chances of obtaining a positive effect of desegregation, our next task was to attempt to estimate what the magnitude of the effect of desegregation on black achievement would be if the strongest methodological design was used. In order to do this, we had to create a common unit of measurement to describe the effects of desegregation. Some studies reported results in grade equivalents, others in raw test score points, some in changes in IQ, and others with more elaborate statistics. Following Glass, we converted these all into standard deviation units. (In the upper elementary school grades a standard deviation unit is equal to about three grade levels; in the lower primary grades a standard deviation is a smaller number of grades. A typical student of below-average performance who moved up one standard deviation would move from the 17th percentile to the 50th, and his IQ would change from 90 to 105.) We used the reference tables for the Comprehensive Test of Basic Skills to convert scores given in grade equivalents to standard deviation units--a somewhat dangerous practice, since a variety of different tests were used and each has its own statistical characteristics. The CTBS is the most commonly used test, however, and if tests are properly normed, the grade equivalent/standard deviation conversion should be the same for all tests. After these conversions were made, our statistical estimates of the effect of desegregation research designs and of using different grades at initial desegregation were used to estimate how much each study's result would be raised or lowered if that study were in fact done of students desegregated at first grade, using a randomized experimental design. We found that our best estimate of the achievement gain was about one-third standard deviations. This would raise the student's achievement in the first grade by a fraction of a year; but if he held on to this advantage throughout school, he would be approximately one grade level higher if he had been in a segregated school.

In the course of doing this analysis we were able to identify those studies which were methodologically strongest. We found studies by 23 authors which were made of students desegregated at either kindergarten or first grade, and which used black students in a segregated school as a control group, or else compared scores to those of previous cohort. As Table 2 shows, these 23 authors studied 45 samples of students involved in 19 desegregation plans in 18 cities (two desegregation plans, a decade apart, were studied in Nashville). Forty of the 45 studies show positive effects and of those for which a size of effect could be estimated, desegregation raised achievement by a quarter of a standard deviation or .3 of a grade year or more.

Apparently St. John and the Bradleys were correct in arguing that

Table 2

RESULTS OF STUDIES OF STUDENTS DESEGREGATED AT KINDERGARTEN OR FIRST GRADE, WHERE ADEQUATE RESEARCH DESIGN WAS USED

City, State[a]	Grade at Deseg.	Design	Effect(s)[b]	Source
Northeast				
Conn. Hartford (met)	K	Random	.37s	Mahan & Mahan (1971)
	1	Random	.12s .32s	Mahan & Mahan (1981)
New Haven	1	Random	.35s	Wood (1969)
New Haven (met)	1	Random	.24s	J. Samuels (1971)
N.J. Newark (met)	1	Random	1.60s	Zdep (1971)
N.Y. New Rochelle	K	Longitudinal	(+)	Wolman (1964)
Rochester (met)	1	Longitudinal	.70s .75s	Bowman (1973)
	1	Random	.2y .7y .1y	Rock (1968)
	K	Longitudinal	.93s	Rentsch (1967)
	1	Longitudinal	.03s	Rentsch (1967)
Midwest				
Ill. Evanston	1	Cohort	-.01s -.05s	Hsia (1971)
Peoria	1	Longitudinal	.07s -.06s	Lemke (1979)
Mich. Ann Arbor	1	Cohort	.05s	Carrigan (1969)
Grand Rapids	K	Longitudinal	.1y	Scott (1970)
	1	Longitudinal	.1y .3y	Scott (1970)
Minn. Minneapolis	1	Longitudinal	(+) (+)	Danahy (1971)
South				
Ga. Dekalb Co.	1	Longitudinal	-.2y	Moore(1971)
Miss. anon. (northeast)			.26s .53s	Morehead (1972)
Gulfport	1	Longitudinal	.7y	Frary & Goolsby (1970)
S.C. Beaufort Co.	K	Cohort	.3y	Chenault (1976)
Tenn. Nashville	1	Longitudinal	.05s .43s	Anderson (1966)
Nashville[c] (met)	1	Cohort	.28s .19s .36s .24s .19s .41s	Nashville Schools (1980)
West				
Ca. Berkeley	1	Cohort	(0)	Dambacher (1971)
	1	Cohort	.18s	Luneman (1973)
Pasadena	K	Cohort	.49s .49s .60s	Kurtz (1975)
	1	Cohort	.20s .02s	Kurtz (1975)
Nev. Las Vegas	1	Cohort	.1y	Clark County Schools (1974)

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[a] "met" indicates metropolitan plan.

[b] "s" indicates effect in standard deviation units; "y" indicates effect in grade level years.

[c] Two separate desegregation plans were studied in Nashville.

methodological factors made an important difference in the study of desegregation. To our mind, this analysis satisfies us that desegregation has consistently positive effects for black students. There has been very little work on the achievement effects of desegregation for hispanic students, but what research there is shows a similar pattern. The Coleman Report (Coleman, et al., 1966, Table 3.23, p. 310) found that hispanics showed higher hispanic achievement test scores in schools with more white students. The effects for both Puerto Rican effects the stronger of the two. Mahard and Crain (1980) made a second study using data from the National Longitudinal Study of the high school graduating class of 1972 (NLS). They found a positive correlative between attending predominantly white schools and achievement for Mexican-Americans, Puerto Ricans, and Cubans. We also found one technically adequate study of a specific desegregation plan: Morrison (1972) studied Anglo-American, Mexican-American, and black achievement in a large urban school system (probably Houston). He found Mexican-American achievement to be higher in desegregated schools. When hispanics were first desegregated in grade three, the desegregated group had lower test scores than those in segregated schools; by the eighth grade they were slightly over one year ahead. The effects of desegregation were stronger for hispanics than for blacks (see pages viii, and 120).

Our efforts to arrive at an accurate estimate of the overall effect of desegregation on achievement has implications for policy as well as research methodology. The finding that strong effects of desegregation occur in the earliest primary grades are a strong argument against delaying desegregation past grade one. Only a few school systems leave the early primary grades segregated; the most significant is Dallas. Our analysis indicates that this is a very unfortunate policy. Many school systems leave kindergarten students segregated. This analysis suggests that it would be academically very beneficial to include minority kindergarten students in a desegregation plan. All 11 studies recorded in Table 1 show positive effects--even those with severly biased methodologies. In Table 2, the five studies which measure the effect of desegregation at kindergarten in standard deviation units show a mean gain of .57 standard deviations. If such gains persist into upper elementary school, this would represent a gain of nearly two grade levels in achievement.

This analysis also has implications for an understanding of how desegregation works. Our analysis found no effect of duration of desegregation on achievement. One study in particular makes this point very well. Iwanicki and Gable (1978) evaluated the Hartford desegregation project in middle elementary school. These students had been desegregated at early grades. They found over one year periods in mid-elementary grades no greater rate of growth for desegregated students than those who remained in the segregated schools. When we contrast this to the highly favorable findings in this same district for desegregation at kindergarten and first grade (see Table 2), we are led to conclude that the desegregation creates a sudden burst of achievement growth lasting through the early grades of elementary school, but that the desegregated students merely maintain this higher level of achievement, and do not increase it through the later years of elementary school. None of our present theories of the way desegregation works would explain this pattern. More research needs to be done following students over a long period of time in several districts in order to determine if this is indeed the typical pattern. If it is, we will have to rethink the impact of desegregation, viewing it as a kind of early childhood intervention. Research on desegregated Head Start programs would also be helpful in this regard.

Reading and Language Arts Skills

In order to further understand the effect of desegregation we looked at achievement test performance on each subtest of the achievement batteries administered in the 93 studies. In many cases separate subtest gains were reported and where they were, we found an interesting pattern. Averaging all the samples of desegregated students together, we find that desegregation increases each subtest about equally. (There is a slight tendency for mathematics gains to be greater than reading gains but the difference is small and not significant.) However, when we looked separately at those samples of students who showed the smallest gains in achievement after desegregation, we found that their scores in the reading comprehension subtest lagged behind their scores in mathematics, spelling, or vocabulary. In school districts where students experienced greater gains than normal, reading subtest scores outpaced the other subtests. There are two interpretations to this. One is that it is a statistical artifact—since reading comprehension is a critical element in achievement test performance, it may be simply that a good score in achievement requires a high level of reading performance. The second interpretation is a substantive one: minority students come into desegregated schools with difficulties in reading comprehension. Schools which are unable to provide help to these students will find their performance not helped by desegregation; those that are able to make a special effort to deal with reading problems will find students benefitting from the entire curriculum and scoring well on all parts of the test. The language arts subtest shows the same pattern--very low scores in schools where students do not benefit from desegregation very much, very high scores where they do. This suggests that a desegregated school must make special efforts to work with language problems, perhaps related to the need to learn standard

English grammar. This would seem to imply that teachers in desegregated schools should make special efforts to assist their black students in reading comprehension. We are reluctant to make such a policy recommendation on the basis of a single piece of research but we do believe that additional research on the relationship of desegregation to various areas of achievement is likely to be quite valuable.

There are very few studies of desegregation in secondary school. Those that were done and which reported performance on tests in subject-matter areas showed an interesting pattern however. In secondary schools where minority students benefitted little from desegregation, their performance in subject matter tests—science, history, etc.—lagged well behind their performance in reading and mathematics. In schools where achievement gains were large, it was greatest in these subject matter tests. This result seems consistent with the findings of the National Opinion Research Center (1973) study which argued that the overall social climate of the secondary school was critical for minority student performance. If a bad racial climate inhibits the academic motivation of black students, this effect should appear most strongly in those tests which measure material specifically taught in secondary school classes. Overall reading and math performance, much of which is carried forward from earlier grades, would not be hindered as much by the negative social climate that inhibits learning. Put more simply, a negative secondary school racial climate does not make black students stupid, but it does prevent them from learning in the courses they take. This result must be considered tentative because of the very small number of studies involved.

There is one exception to the general pattern that tests in all areas of achievement show approximately equal gains as a result of desegregation when all studies, of both successful and unsuccessful desegregation plans, are considered. The largest gains appear consistently on tests of general intelligence. Increases in IQ scores after desegregation generally outrun performance on all subareas of standard achievement tests. In 29 cases where a comparison was possible, IQ scores were greater than the average of the other subtests in 16 cases and less than the average in only five. Table 3 reports the IQ gains following desegregation for 38 samples of students studied by 12 authors. We have divided the studies into three categories based on overall quality of the methodology used. Standing alone is the Wood (1969) study, a randomized experiment conducted in Hartford, Connecticut. It shows gains of four or more IQ points during the first year of desegregation and is a technically excellent study. In the second group we list six studies where the IQ growth of desegregated students is compared to that of segregated students—our next best design to randomization. Thirteen of the 18 studies in this category show IQ gains resulting from desegregation, with half the studies showing gains of three IQ points or more. In the last grouping we include five studies which we think should not be taken as seriously as the others because of technical problems, even though these studies also show IQ gains resulting from desegregation. The last four of these studies are technically weaker designs having no segregated black control group for comparison. The first study is a technically excellent design done in Hartford, but the students used in this study are to a large degree the same students studied by Wood and we have discounted this study in order to avoid being overly influenced by a single desegregation plan.

From these studies we estimate that desegregation tends to raise black achievement by approximately four IQ points on average. If this is correct, it represents a significant increase in performance on these tests. The

Table 3

RESULTS OF 13 STUDIES OF DESEGREGATION AND BLACK IQ GAINS

State, City	Grade	Method	Effect (IQ)	Source
Conn., Hartford	K-1	Randomized	4.5[a]	Wood (1969)
	2-3		5.5[a]	
	4-5		4.0[a]	
Fla., Brevard Co.	10	Longitudinal	10.7[a]	Williams (1968)
Ky., (anon)	5-6	Longitudinal	-4.5	Meketon (1966)
	5-6		7.3	
Mich., Flint	5	Longitudinal	2.0	Van Every (1969)
N.Y., Rochester	1	Longitudinal	1.2	Rentsch (1967)
	2		0	
	3		6.6	
	4		.4	
	5		-2.5	
N.Y., Syracuse	1	Longitudinal	-1.1	Beker (1967)
	2		- .6	
	3		3.7	
	1		1.6	
	2		5.9	
	3		5.0	
Okla., Tulsa	3	Longitudinal	7.2[a]	Griffen (1969)
			7.2[a]	
			6.2[a]	
Conn., Hartford	K	Randomized	6.0[a]	Mahan (1968)
	1		1.3	
	2		4.7	
	3		7.6[a]	
	4		-1.2	
	5		.4	
Fla., Hillsborough County	4	Norms	6.5[a]	Taylor (1974)
Mich., Ann Arbor	K	Cohort	5.2	Carrigan (1969)
	1		3.4	
	2		2.4	
	3		-3.9	
	4		-4.2	
	5		-1.6	
Miss., (anon - northeast)	1	Cohort	5	Moorehead (1972)
	1		7[a]	
N.Y., White Plains	2	Cohort	-1	Bondarin (1970)
	5		1	

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[a] $p < .05$

average pre-test scores in this collection of studies is around 91—a four point increase would erase nearly half of the "gap" between that and the norm of 100.

At one time it was believed that IQ tests measured an ability to learn which was physiological, unaffected by school environment. This view is no longer held and some research has shown that certain kinds of school curricula have greater impact on IQ than others. For example, the Standard Research Institute study of the follow-through experiment (Stallings, et al., 1978) found that students in "traditional" follow-through compensatory programs showed gains in basic skill scores but little gain on a non-verbal IQ test (the Ravens test). Conversely, students in more self-directed learning environments showed less increase in basic skills but more gain in IQ. It seems reasonable to argue that the desegregated classroom is a cognitively more stimulating environment, if for no other reason than that the student in confronted with a variety of stimuli and behaviors which they would not experience in the more homogeneous environment of their neighborhood school.

Findings Relevant to Desegregation Policy

We now come to the heart of this exercies—having removed the extraneous effects of differences in methodology from the results of these 93 studies we are in a position to inquire whether certain kinds of desegregation plans seem to have stronger effects on desegregation than others. One important conclusion is a negative one—issues related to voluntary versus mandatory desegregation and one-way versus two-way busing seem irrelevant. Mandatory plans and voluntary plans show approximately equal achievement gains. (In an earlier paper [Crain and Mahard, 1978] we noted that mandatory plans seemed to show higher achievement gains. We were reluctant at that time to accept this as a firm finding and were apparently wise to do so, since with the larger sample we cannot find any difference between the two types of plans.) We also can find no evidence that formerly black schools differ from formerly white schools in their achievement impact.

One important finding is that the metropolitan desegregation plans analyzed show stronger achievement effects than other studies. Recall in Table 2 that there were several notheastern studies of metropolitan plans. These plans, in Hartford and New Haven, Connecticut, Newark, New Jersey, and Rochester, New York, all involved the voluntary transfer of black students from inner-city schools to suburban schools and were all evaluated with experimental designs. In these cases, the number of students who would be willing to attend suburban schools far exceeded the number of spaces available to them, so that students were chosen by lottery. When those students selected for the plan were compared to those who were not, in every case sizable achievement gains were reported.

The other type of metropolitan plan is the result of the merger of suburban and central city school districts. In this data set we have only one example--the Nashville-Davidson County public schools were merged and desegregated shortly thereafter. This, the second Nashville study recorded in Table 2, shows sizable achievement gains for black students. Another study, which we located too late to be entered into our computer file of studies, comes from Louisville, Kentucky, where consolidation of the city and suburban districts took place in 1975. The newly formed Jefferson County school system compared the performance of fifth grade black students in 1978 to those in the fifth grade in 1975 when desegregation began and found black students' overall performance rising from the 25th percentile nationally to the 33rd percentile. At the same time, white students rose from the 50th percentile to the 54th (Louisville Times, 1980). These striking gains do not appear for older students, who were desegregated after starting school in segregated classes. The other major metropolitan desegregation plan is Newcastle County, Delaware, the result of the merger of several suburban systems with the Wilmington public schools. We have not received any achievement data for minority students there.

Table 4 shows the expected achievement gain for students in metropolitan desegregation plans and in other types of communities. These expected scores are statistically adjusted to eliminate differences in methodological quality and the effects of desegregation at later grades. The estimates of effect are computed by assuming that the studies in all four kinds of situations were done with the same mix of good and bad research designs and the same mix of upper grade and lower grade desegregation. Alternately, we could have tried to estimate the effect of desegregation assuming randomized experimental evaluation of students desegregated at first grade in all four communities. Since we estimate that the average gain is .3 of a standard deviation, if we had used this estimate, we would show in Table 4 effects of desegregation varying on both sides of this .3 value. The important point in Table 4 is not the magnitude of the four values, but their relative relationship. What we find there is that metropolitan studies show the strongest effect of desegregation while studies in suburbs and in central cities show weaker effects. Lying between the two is the results of studies made in county-wide school systems, which are common in the South. A county-wide system is a kind of metropolitan desegregation plan, but different in the sense that desegregation does not involve the reassignment of black students into schools which were traditionally administered by a school district serving only suburban students. Thus it is a different form of metropolitan desegregation and shows results similar to the plans which are normally referred to as metropolitan in nature.

Table 4

EFFECT OF DESEGREGATION, BY TYPE OF SCHOOL DISTRICT SETTING

	Mean Effect (std. dev.)	Number of Samples
Central city	.065	(97)
Suburb	.021	(76)
County-wide	.119	(31)
Metropolitan	.144	(30)

Why should metropolitan desegregation plans show stronger desegregation effects? There are two plausible explanations, although neither of them can be tested with these data. The first is that metropolitan desegregation represents the most complete form of socioeconomic desegregation. Minority students from low income central city neighborhoods are reassigned to suburban schools in affluent areas. If the plan were limited only to the central city, the number of middle class white students available would be sharply reduced. By the same argument, desegregation within suburban schools might be relatively ineffective because the minority children living in suburban ghettos would not be as poor as those living in central cities--thus improvement to the same level of achievement in desegregated schools would not be as marked a gain for them, since their performance in segregated schools would already be fairly high. This hypothesis would explain why county-wide plans would be as effective as other kinds of metropolitan plans, since both would involve the full range of socioeconomic differences in the area. There is a second explanation, having to do with the administration of school districts. This hypothesis argues that suburban school districts, spared the conflict and tension that surrounds the operation of many central city school districts, have been able to recruit stronger teaching staffs and better principals and provide a more effective administrative environment for their schools. Once a metropolitan school district is created or minority students are reassigned to suburban schools, these schools are able to maintain their stronger academic traditions. This hypothesis does not agree with one study, however: Natkin (1979) found that black students bused to suburban schools did no better on achievement tests than those who remained in the newly desegregated inner city schools. Had there been a strong difference in the quality of teaching or administration in the two kinds of schools, one would have expected the bused students to do better. The suburban Louisville schools were affected by staff desegregation as well as student desegregation. Intuitively, we would expect this to have both negative and positive effects on black students in suburban schools. They would be harmed by the dislocation of teaching staffs and the high turnover of staff in these schools. At the same time, they would probably benefit from the presence of more black teachers in the suburban schools. In this sense we would expect formal metropolitan desegregation plans involving the merger of suburban and central city districts to be more effective in the long run than voluntary plans which sometimes leave virtually all-white teaching staffs in the suburban schools serving the inner city minority transfer students.

The Racial Composition of Desegregated Schools

We also looked at the effectiveness of desegregation in schools of different racial compositions. We were guided by two findings from the literature. The first is that the various large-scale studies of schools have found black achievement directly related to percentage white in the school--the whiter the school, the higher the minority achievement. The second from the National Community Research Study was that there was an optimal point in percentage white--that when percentage white exceeded

80 percent, achievement began falling. In Table 5 we have plotted the expected achievement gain, once the effects of differences in methodology and grade of desegregation have been removed, and find similar patterns in both the North and the South. In the South the pattern is quite clear and is statistically significant.[3] Achievement reaches a peak for schools between 19 and 29 percent black and drops off on either side in a reasonably steady manner. In the North the pattern is more complex. There is again a high point in the 9 to 18 percent range with a decline in both directions, although the decline is not completely even and the overall pattern is not statistically significant. The differences are not small. In the North, a school with a relatively small black population has achievement scores which are a tenth of a standard deviation higher than schools with larger black populations. In the South, the difference may be as much as .2 of a standard deviation.

The finding that schools with smaller black populations have higher achievement can be explained in two ways. First, if the main effect of desegregation is to place low income families into schools with affluent students, the more white students the greater the average income level in the school. (We cannot test this directly, since none of the 93 studies reported the actual social class of either the black or white students.) Secondly, a smaller black population makes it more difficult to resegregate the school by creating an all-minority class of supposedly low-ability students. Presumably, such a segregated classroom would be detrimental to achievement.

The finding that achievement is lower in the schools with the smallest percentage black population is also consistent with theory as well as with the National Opinion Research Center study. The argument is simply that the overwhelmingly white school is a hostile environment for black students:

there are not enough black students and not enough black teachers to provide minority students with the sense of being integrated into the school. The argument would be that they would remain feeling as outsiders, not really a part of the school situation and inhibited in their learning because of this. (See Crain, Mahard, and Narot, forthcoming, for an elaboration of this argument.)

Table 5

DESEGREGATION EFFECT, BY PERCENT BLACK OF DESEGREGATED SCHOOL

(size of effect (std. dev.) and number of samples)

	Region	
Percent Black	North	South
1 - 8	.084 (19)	.099 (12)
9 - 18	.210 (29)	.178 (8)
19 - 29	.023 (29)	.274 (7)
30 - 37	.052 (27)	.144 (20)
38 - 44	-.032 (26)	.054 (10)
44 - 100	.083 (20)	.058 (33)
Total	.050 (143)	.111 (89)

Civil rights advocates have frequently argued for the establishment of a "critical mass" of black students, insisting that desegregation plans not spread black students so thinly that they make up less than 15 percent or 20 percent of the school. These achievement results seem consistent with that request. At the same time, these data provide additional support for the metropolitan desegregation argument. For it is only with metropolitan desegregation that one can be guaranteed a large enough population of white students to provide for predominantly (but not overwhelmingly) white student bodies.

Conclusion

It is often said that science is a cumulative process--that each research paper makes a small contribution as it is built upon by others. Certainly, the many students who wrote doctoral dissertations about school desegregation over the past 20 years were not able to anticipate that the advent of high speed computers and the development of meta-analysis would enable their work to make a contribution of this kind. But this is exactly what has happened. The overall pattern of results of these studies has been obscured by methodological errors which are nearly unavoidable in many cases. Because of this, it was impossible from a quick reading of them to even say whether desegregation was beneficial for minority achievement or not. But once reasonable estimates have been derived for the correction factors due to inadequate methodology, a clear pattern emerges. We can see from this analysis that desegregation is indeed beneficial, although it must begin in the earliest grades. We have also seen what research has led us to suspect for some time--that desegregation in a predominantly white society requires predominantly white schools, and desegregation in a society where whites have run to the suburbs to establish a "white noose" around declining minority central cities requires metropolitan desegregation. We have also learned some things which were not expected. The discovery that a school can have too many white students and thus harm black achievement confirms what up to now had been a largely speculative argument for a "critical mass" of black students in desegregated schools.

There is a great deal more work to be done. Our findings that desegregation enhances IQ test scores as much or more than it does achievement test scores calls into question a lot of our assumption about the meaning of intelligence and invites us to think more about why desegregation is beneficial. Similarly, the finding that desegregation's success seems peculiarly dependent on scores in reading comprehension and language arts invites researchers to think further about this issue. Finally, and most important, the discovery that effects of desegregation are almost completely restricted to the early primary grades--that desegregation is successful as an early childhood intervention--means that we must begin rethinking what desegregation is doing for black students.

Some policy implications are clear--early desegregation, metropolitan desegregation, desegregation in predominantly white schools but with a critical mass of black students. In terms of the policy options available to officials in federal and local administrations, the success of voluntary one-way transfer programs to suburbs is particularly relavent. Some states have enabling legislation to permit this to occur. While there is a great deal of opposition from central city administrations, central city teachers unions, and some central city black political leaders, there is also a good deal of support--from suburban school administrators with declining enrollments, from integrationist groups in the suburbs, and from black parents themselves. While this is hardly a substitute for court-ordered metropolitan desegregation, it is a reasonable first step that can be taken without waiting for the courts. Since it is a policy which has little opposition from the traditional anti-busing groups which have frightened so many school boards, this is a policy which some school systems may wish to follow in order to demonstrate their willingness to at least take partial steps toward desegregation.

Reference Notes

1. The 93 studies alphabetically, are:

Aberdeen (1969); Anderson (1966); Baltzell (1974); Banks and Di Pasquale (1969); Barnett (1972); Bartz (1978); Beers and Reardon (1974); Beker (1967); Benjamin (1975); Bennett (1974); Bondarin (1970); Bowman (1973); Bryant (1968); Calhoun (1978); Carrigan (1969); Chenault (1976); Clark (1971); Clark County School District (1975); Clinton (1969); Dambacher (1971); Danahy (1971); Denmark (1970); Dressler (1967); Evans (1973a, 1973b); Felice (1974); Fortenberry (1959); Fox, Stewart, and Pitts (1968); Frary and Goolsby (1970); Gardner, Wright, and Dee (1970); Gerard and Miller (1975); Graves and Bedell (1967); Griffin (1969); Hsia (1971); Iwanicki and Gable (1978, 1979); Jonnson (1967); Justin (1973); Justin and Thabit (1975); Klein (1967); Kurtz (1975); Laird and Weeks (1966); Lemke (1979); Levy (1970); Linney (1978); Los Angeles Desegregation Monitoring Committee (1980); Luneman (1973); Mahan and Mahan (1970, 1971); Mayer et al. (1974); Marcum (1968); Marcus and Sheehan (1978); Maynor and Katzenmeyer (1974); Meier (1975); Meketon (1966); Moore (1971); Moorefield (1968); Moorehead (1972); Moreno (1971); Morrison (1972); Nashville-Davidson County Public Schools (1979); Natkin (1980); Papay (1976); Pascarelli, Talmadge, and Pinzur (1979); Perry and Kopperman (1973); Prewitt (1971); Prichard (1969); Purl and Dawson (1973); Rentsch (1967); Rock, Lang, Goldberg, and Heinrich (1968); Sacremento City Unified School District (1971); Samuels, I. (1958); Samuels, J. (1971); Savage (1971); Schellenberg and Halteman (1976); Scott (1970); Shaker Heights School Board (1972), Sheehan and Marcus (1978); Shutman (1974); Slone (1968); Smith, Alton (1978); Smith, Annie (1975); Smith, L. (1971); Stallings (1959); Starnes (1968); Stephenson and Spieth (1972); Syracuse City School District (1967a, 1967b); Taylor (1974); Teele (1973); Thomas (1977); Thompson and Dyke (1972); Van Every (1969); Walberg (1971); Williams (1968); Wolman (1964); Wood (1968); Zdep (1971).

2. The analysis of the effect of methodology on the estimate of the effect of desegregation is described in much more detail in Crain and Mahard, (forthcoming).

3. The significance tests reported here are based on the number of authors, rather than the total number of samples, since multiple samples from the same author do not constitute independent populations.

References

Aberdeen, F. D. *Adjustment to desegregation: A description of some differences among Negro elementary school pupils* (Doctoral dissertation, University of Michigan, 1969). *Dissertation Abstracts International*, 1970, *30*, 3659. (University Microfilms No. 70-4025)

Anderson, L. V. *The effect of desegregation on the achievement and personality patterns of Negro children* (Doctoral dissertation, George Peabody College for Teachers, 1966). *Dissertation Abstracts*, 1966, *27*, 1529A. (University Microfilms No. 66-11237)

Baltzell, D. C. *Rapid desegregation and academic achievement in a large urban school district*. Paper presented at the annual meeting of the American Educational Research Association, Chicago, April 1974.

Banks, R., & Di Pasquale, M. E. *A study of the educational effectiveness of integration*. Buffalo, N. Y.: Buffalo Public Schools, 1969.

Barnett, S. *Evaluation of San Francisco Unified School District desegregation/integration 1971-1972*. San Francisco, Calif.: San Francisco Unified School District, 1972.

Bartz, D. E. *Desegregation in Kalamazoo, Michigan*. Charleston, Ill.: Eastern Illinois University, Department of School Services Personnel, 1978.

Beers, J. S., & Reardon, F. Racial balancing in Harrisburg: Achievement and attitudinal changes. *Integrated Education*, 1974, *12*(5), 35-38.

Beker, J. *A study of integration in racially imbalanced urban public schools*. Unpublished manuscript, 1967. (Available from the Syracuse University Youth Development Center, Syracuse, New York)

Benjamin, R. C. *An evaluation of the cluster program in Lansing*. Lansing, Mich.: Lansing School District, Office of Evaluation Services, 1975.

Bennett, J. E. The effects of integration on achievement in a large elementary school. *Florida Journal of Educational Research*, 1974, *16*, 12-15.

Bondarin, A. *The racial balance plan of White Plains, New York*. New York: Center for Urban Education, Program References Service, 1970.

Bowman, O. H. *Scholastic development of disadvantaged Negro pupils: A study of pupils in selected segregated and desegregated elementary classrooms* (Doctoral dissertation, State University of New York at Buffalo, 1973). *Dissertation Abstracts International*, 1973, *34*, 503A. (University Microfilms No. 73-19, 176)

Bryant, J. C. *Some effects of racial integration of high school students on standardized achievement test scores: Teacher grades and drop-out rates in Angleton, Texas*. Unpublished doctoral dissertation, University of Houston, 1968.

Calhoun, P. C. *A study of the effects of forced desegregation pairing of a low socioeconomic status black elementary school with a middle socioeconomic status white elementary school on achievement, social interaction, and enrollment*. Unpublished doctoral dissertation, Georgia State University, 1978.

Carrigan, P. M. *School desegregation via compulsory pupil transfer: Early effects on elementary school children*. Ann Arbor, Mich.: Ann Arbor Public Schools, September 1969.

Chenault, G. S. *The impact of court-ordered desegregation on student achievement* (Doctoral dissertation, University of Iowa, 1976). *Dissertation Abstracts International*, 1977, *37*, 7426A. (University Microfilms No. 77-13, 068)

Clark County School District. *Desegregation report*. Las Vegas, Nev.: Clark County School District, 1975.

Clark, E. N. *Analysis of the differences between pre- and post-test scores (change scores) on measures of self-concept, academic aptitude, and reading achievement earned by sixth grade students attending segregated and desegregated schools* (Doctoral dissertation, Duke University, 1971). *Dissertation Abstracts International*, 1971, *32*, 2902A. (University Microfilms No. 72-307)

Clinton, R. R. *A study of the improvement in achievement of basic skills of children bused from urban to suburban school environments*. Unpublished master's thesis, Southern Connecticut State College, 1969.

Dambacher, A. D. *A comparison of achievement test scores made by Berkeley elementary students pre and post integration eras, 1967-1970*. Berkeley, Calif.: Berkeley Unified School District, 1971. (mimeographed)

Danahy, A. H. *A study of the effects of bussing on the achievement, attendance, attitudes, and social choices of Negro inner city children* (Doctoral dissertation, University of Minnesota, 1971). *Dissertation Abstracts International*, 1972, *32*, 6032A. (University Microfilms No. 72-14, 285).

Denmark, F. L. The effect of integration on academic achievement and self-concept. *Integrated Education*, 1970, *8*(3), 34-43.

Dressler, F. J. *Study of achievement in reading of pupils transferred from schools 15 and 37 to peripheral schools to eliminate overcrowding, to abandon on obsolete school, and to achieve a more desirable racial balance in city schools*. Buffalo, N. Y.: Buffalo Public Schools, Division of Curriculum Evaluation and Development, 1967. (mimeographed)

Evans, C. L. *Desegregation study II: Academic effects on bused Black and receiving white students, 1972-73*. Fort Worth, Tex.: Fort Worth Independent School District, 1973. (a)

Evans, C. L. *Short-term desegregation effects: The academic achievement of bused students, 1971-72*. Fort Worth, Tex.: Fort Worth Independent School District, 1973. (b)

Felice, L. G. *The effect of school desegregation on minority group student achievement and self-concept: An evaluation of court-ordered busing in Waco, Texas* (Report to the Office of Education, U. S. Department of Health, Education and Welfare). Waco, Tex.: Research Development Foundation, June 1974. (ERIC Document Reproduction Service No. ED 094 096)

Fortenberry, J. H. *The achievement of Negro pupils in mixed and nonmixed* schools (Doctoral dissertation, University of Oklahoma, 1959). *Dissertation Abstracts*, 1959, *20*, 2643. (University Microfilms No. 59-5492)

Fox, D. J., Steward, C., & Pitts, V. *Services to children in open enrollment receiving schools: Evaluation of ESEA Title I projects in New York City, 1967-1968*. New York: Center for Urban Education, 1968. (mimeographed)

Frary, R. B., & Goolsby, T. M., Jr. Achievement of integrated and segregated Negro and white first graders in a southern city. *Integrated Education*, 1970, *8*(4), 48-52.

Gardner, B. B., Wright, B. D., & Dee, R. *The effect of busing black ghetto children into white suburban schools*. Chicago: Social Research, Incorporated, 1970. (ERIC Document Reproduction Service No. ED 048 389)

Gerard, H. B., & Miller, N. (Eds). *School desegregation: A long-range study*. New York: Plenum Press, 1975.

Graves, M. F., & Bedell, F. D. *A three-year evaluation of the White Plains racial balance plan*. White Plains, N. Y.: Board of Education, 1967. (mimeographed)

Griffin, J. L. *The effects of integration on academic aptitude, classroom achievement, self-concept and attitudes toward the school environment of a selected group of Negro students in Tulsa, Oklahoma* (Doctoral dissertation, University of Tulsa, 1969). *Dissertation Abstracts*, 1969, *30*, 1748A. (University Microfilms No. 69-17, 923)

Hsia, J. J. *Integration in Evanston, 1967-1971: A longitudinal evaluation*. Evanston, Ill.: Midwestern Office, Educational Testing Service, August 1971.

Iwanicki, E. F. *An evaluation of the 1975-76 Project Concern program*. Hartford, Conn.: Hartford Public Schools, 1976.

Iwanicki, E. F., & Gable, R. *An evaluation of the 1976-77 Hartford Project Concern Program*. Hartford, Conn.: Hartford Public Schools, 1977.

Iwanicki, E. F., & Gable, R. *A quasi-experimental evaluation of the effects of a voluntary urban/suburban busing program on student achievement*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Iwanicki, E. F., & Gable, R. *Final evaluation report 1978-79 Hartford Project Concern program*. Hartford, Conn.: Hartford Public Schools, 1979.

Jonsson, H. A. *Report of evaluation of ESEA Title I compensatory activities for 1966-1967*. Berkeley, Calif.: Berkeley Unified School District, 1967.

Justin, N. L. Integration, not just black and white: Insights from seven Florida studies. In N. F. Justin and H. A. Kersey (Eds.), *Florida education in the 1970's*. Dubuque, Iowa: Kendall/Hunt Publishing Company, 1973.

Justin, N. E., & Thabit, J. Black and white achievement before and after integration. *Intellect*, 1975, *102*, 458-459.

Klein, R. S. *A comparative study of the academic achievement of Negro tenth grade high school students attending segregated and recently integrated schools in a metropolitan area of the South*. Unpublished doctoral dissertation, University of South Carolina, 1967.

Kurtz, H. *The educational and demographic consequences of four years of school desegregation in the Pasadena Unified school district*. Pasadena Calif.: Pasadena Unified School District, 1975.

Laird, M. A., & Weeks, G. *The effect of bussing on achievement in reading and arithmetic in three Philadelphia schools*. Philadelphia: Philadelphia School District, 1966. (mimeographed)

Lemke, E. A. The effects of busing on the achievement of white and black students. *Educational Studies*, 1979, *9*, 401-406.

Levy, M. *A study of Project Concern in Cheshire, Connecticut: September 1968-June 1970*. Cheshire, Conn.: Department of Education, 1970.

Linney, A. *A multivariate, multilevel analysis of a midwestern city's court ordered desegregation*. Unpublished doctoral dissertation, University of Illinois, Urbana-Champaign, 1978.

Los Angeles Desegregation Monitoring Committee. *Permits with transportation: Additional analysis and a follow-up report*. Los Angeles: Los Angeles Unified School District, 1980.

Luneman, A. Desegregation and student achievement: A cross-sectional and semi-longitudinal look at Berkeley, California. *Journal of Negro Education*, 1973, *42*, 439-446.

Mahan, T. W., & Mahan, A. M. Changes in cognitive style: An analysis of the impact of white suburban schools in inner city children. *Integrated Education*, 1970, *8*(1), 58-61.

Mahan, T. W., & Mahan, A. M. The impact of schools on learning: Inner city children in suburban schools. *Journal of School Psychology*, 1971, *9*(1), 1-11.

Marcum, R. B. *An exploration of the first year effects of racial integration of the elementary schools in a unit school district*. (Doctoral dissertation, Stanford University, 1968). *Dissertation Abstracts*, 1969, *30*, 69A. (University Microfilms No. 69-10, 784)

Marcus, M. M., & Sheehan, D. S. *The relationship between desegregation, student attitude and student background and achievement characteristics*. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Mayer, R. R. (Ed.). *The impact of school desegregation in a southern city*. Boston: D.C. Heath, 1974.

Maynor, W., & Katzenmeyer, W. G. Academic performance and school integration: A multi-ethnic analysis. *Journal of Negro Education*, 1974, *43*, 30-38.

Meier, J. A. *Longitudinal effects of desegregation, 1972-1975*. Dallas: Dallas Independent School District, 1975.

Meketon, B. *The effects of integration upon the Negro child's responses to various tasks and upon his level of self-esteem*. Unpublished doctoral dissertation, University of Kentucky, 1966.

Middleton, E. J. *The effects of desegregation on the academic achievement of black and white high school seniors in St. Mary Parish, Louisiana* (Doctoral dissertation, University of Colorado, 1974). *Dissertation Abstracts International*, 1974, *35*, 1878A. (University Microfilms No. 74-22, 372)

Moore, L. *The relationship of selected pupil and school variables and the reading achievement of third-year primary pupils in a desegregated school setting* (Doctoral dissertation, University of Georgia, 1971). *Dissertation Abstracts International*, 1972, *33*, 4843A. (University Microfilms No. 72-11, 018)

Moorefield, T. E. *The bussing of minority group children in a big city school system* (Doctoral dissertation, University of Chicago, 1968).

Moorehead, N. F. *The effects of school integration on intelligence test scores of Negro children* (Doctoral dissertation, Mississippi State University, 1972). *Dissertation Abstracts International*, 1972, *33*, 193A. (University Microfilms No. 72-20, 270)

Moreno, M. C. *The effect of integration on the aptitude, achievement, attitude to school and class and social acceptance of Negro and white pupils in a small urban school system* (Doctoral dissertation, Fordham University, 1971). *Dissertation Abstracts International*, 1971, *32*, 1755A. (University Microfilms No. 71-27, 014)

Morrison, G. A., Jr. An analysis of academic achievement trends for Anglo-American, Mexican-American, and Negro-American students in a desegregated school environment (Doctoral dissertation, University of Houston, 1972). Dissertation Abstracts International, 1972, 33, 6024. (University Microfilms No. 73-08927)

Nashville-Davidson County Schools. Achievement performance over seven years. Nashville, Tenn.: Nashville-Davidson County Public Schools, 1979. (mimeographed)

Natkin, G. L. The effects of busing on second grade students achievement test scores (Jefferson County, Kentucky). Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Papay, J. P. Effects of induced desegregation. Dallas: Dallas Independent School District, Department of Research, Evaluation, and Information Systems, 1976.

Pascarelli, E. T., Talmadge, H., & Pinzur, S. R. Summative evaluation of longitudinal student achievement data in a desegregated school district. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

Perry, G. A., & Kopperman, N. A better chance: Evaluation of student attitudes and academic performance 1964-1972. Boston: A Better Chance, 1973. (ERIC Document Reproduction Service No. ED 075 556)

Prewitt, H. D. The influence of racial integration on scholastic achievement in the elementary schools of Lufkin, Texas (Doctoral dissertation, Texas A & M University, 1971). Dissertation Abstracts International, 1972, 32, 4303A. (University Microfilms No. 72-05705) (a)

Prichard, P. N. The effects of desegregation on selected variables in the Chapel Hill City school system (Doctoral dissertation, University of North Carolina, 1969). Dissertation Abstracts International, 1970, 30, 3697A. (University Microfilms No. 70-03301) (b)

Purl, M. C., & Dawson, J. A. The achievement of students in primary grades after seven years of desegregation. Riverside, Calif.: Riverside Unified School District, 1973.

Rentsch, G. J. Open-enrollment: An appraisal (Doctoral dissertation, State University of New York at Buffalo, 1967). Dissertation Abstracts, 1967, 28, 1010A. (University Microfilms No. 67-11, 516)

Rock, W. C., Lang, J. E., Goldberg, H. R., & Heinrich, L. W. A report on a cooperative program between a city school district and a suburban school district. Rochester, N. Y.: City School District, 1968. (mimeographed)

Sacramento City Unified School District. Focus on reading and math, 1970-71: An evaluation report on a program of compensatory education, ESEA Title I. Sacramento, Calif.: Sacramento City Unified School District, 1971.

Samuels, I. G. Desegregated education and differences in academic achievement (Doctoral dissertation, Indiana University, 1958). Dissertation Abstracts, 1958, 19, 1293. (University Microfilms No. 58-2934)

Samuels, J. M. A comparison of projects representative of compensatory; busing; and non-compensatory programs for inner-city students (Doctoral dissertation, University of Connecticut, 1971). Dissertation Abstracts International, 1972, 32, 6725A. (University Microfilms No. 72-14, 252)

Savage, L. W. Academic achievement of black students transferring from a segregated junior high school to an integrated high school (Master's thesis, Virginia State College, 1971).

Schellenberg, J., & Halteman, J. Bussing and academic achievement: A two-year follow up. Urban Education, 1976, 10(4), 357-365.

Scott, W. A study of bused and non-bused children. Grand Rapids, Mich.: Grand Rapids Public Schools, 1970.

Shaker Heights School Board. An interim evaluation of the Shaker School Plan. Shaker Heights, Ohio: Shaker Heights Public Schools, 1972. (mimeographed)

Sheehan, D. S., and Marcus, M. M. The effects of desegregation on student attitudes and achievement. Dallas, Tex.: Dallas Independent School District, Department of Research, Evaluation, and Information Systems, 1978.

Shutman, E. The relationship of desegregation and of consistent attendance to reading achievement of primary-grade Negro pupils (Doctoral dissertation, University of Southern California, 1974). Dissertation Abstracts International, 1974, 35, 1883A. (University Microfilms No. 74-21, 508)

Slone, I. W. The effects of one school pairing on pupil achievement, anxieties and attitudes (Doctoral dissertation, New York University, 1968). Dissertation Abstracts, 1968, 29, 421A. (University Microfilms No. 68-11, 808)

Smith, A. B. A study of the educational effectiveness of desegregation. Unpublished doctoral dissertation, University of Oklahoma, 1978.

Smith, A. D., Downs, A., & Lachman, M. Achieving effective desegregation. Lexington, Mass.: D. C. Heath & Co., 1979.

Smith, A. D. The impact of desegregation on the Florida Statewide twelfth-grade achievement test scores of black and white students in a rural and an urban Florida county (Doctoral dissertation, University of Florida, 1975). Dissertation Abstracts International, 1976, 36, 7878A. (University Microfilms No. 76-12, 133)

Smith, L. R. A comparative study of the achievement of Negro students attending segregated junior high schools and Negro students attending desegregated junior high schools in the city of Tulsa (Doctoral dissertation, University of Tulsa, 1971). Dissertation Abstracts International, 1971, 32, 1348. (University Microfilms No. 71-22, 730)

Stallings, F. H. A study of the effects of integration on scholastic achievement in the Louisville public schools (Doctoral dissertation, University of Kentucky, 1959).

Starnes, T. A. An analysis of the academic achievement of Negro students in the predominantly white schools of a selected Florida county (Doctoral dissertation, University of Southern Mississippi, 1968). Dissertation Abstracts, 1968, 29, 1092A. (University Microfilms No. 68-14, 712)

Stephenson, R., & Spieth, P. Evaluation of desegregation 1970-1971. Miami, Fla.: Dade County Public Schools, Department of Program Evaluation, June 1972. (ERIC Document Reproduction Service No. ED 070 792)

Syracuse City School District. Study of the effect of integration—Croton and Edward Smith Elementary School pupils (U.S. Commission on Civil Rights, Hearing held in Rochester, New York, September 1966). Washington, D.C.: U.S. Government Printing Office, 1967. (a)

Syracuse City School District. Study of the effect of integration--Washington Irving and host pupils (U.S. Commission on Civil Rights, Hearing held in Rochester, New York, September 1966). Washington, D.C.: U.S. Government Printing Office, 1967. (b)

Taylor, D. R. A longitudinal comparison of intellectual development of black and white students from segregated to desegregated settings. Unpublished doctoral dissertation, University of South Florida, 1974.

Teele, J. E. Evaluating school busing: A case study of Boston's Operation Exodus. New York: Praeger, 1973.

Thomas, K. D. The effect of busing on school success of minority students in urban elementary schools. Unpublished doctoral dissertation, North Texas State University, 1977.

Thompson, C. E., & Dyke, F. L. First interim evaluation report: Urban-suburban pupil transfer program, 1971-1972. Rochester, N. Y.: Rochester City School District, 1972.

Van Every, D. F. Effect of desegregation on public school groups of sixth graders in terms of achievement levels and attitudes toward school (Doctoral dissertation, Wayne State University, 1969). Dissertation Abstracts International, 1970, 31, 1559A. (University Microfilms No. 70-19, 074).

Walberg, H. J. An evaluation of an urban-suburban school busing program: Student achievement and perceptions of class learning environment. Paper presented at the annual meeting of the American Educational Research Association, New York, February 1971. (ERIC Document Reproduction Service No. ED 047 076).

Williams, F. E. An analysis of some differences between Negro high school seniors from a segregated high school and a non-segregated high school in Brevard County, Florida (Doctoral dissertation, University of Florida, 1968). Dissertation Abstracts, 1969, 30, 1388A. (University Microfilms No. 69-17050)

Wolman, T. G. Learning effects of integration in New Rochelle. Integrated Education, 1964, 2(6), 30-31.

Wood, B. H. The effects of bussing vs. non-bussing on the intellectual functioning of inner city, disadvantaged elementary school children (Doctoral dissertation, University of Massachusetts, 1968). Dissertation Abstracts, 1969, 29, 3432A. (University Microfilms No. 69-5186)

Zdep, S. M. Educating disadvantaged urban children in suburban schools: An evaluation. Journal of Applied Social Psychology, 1971, 1(2), 173-186.

CHAPTER IV

RESEGREGATION: SEGREGATION WITHIN DESEGREGATED SCHOOLS

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Introduction

Resegregation involves the separation of children by race and ethnicity within the walls of desegregated schools after the school bus stops at the door.

> After the school bus arrives, the students enter school and go to their classes. In a high school, the students attend the courses of their assigned curriculum tracks, with some students going to honor's courses and others to regular or remedial courses. In junior high school, the students take their books to section 8-1, 8-2, 8-3 or 8-4 and on down the list of bright to dull classes. In an elementary school, the bluebirds, robins, and magpies, meet in their reading groups, spelling, and math groups. There are many ways to resegregate obstensibly desegregated populations. (Epstein, 1980)

Substantial resegregation does exist. Within school resegregation is highest where desegregation is highest suggesting that there are forces at the school level working at cross purposes with global policies mandating integration.

In an analysis of Office of Civil Rights survey data of 1976, Morgan and McPartland found that while racial segregation was primarily due to segregated schools, resegregation played an important role in contributing to racial isolation in education. They noted that "majority white desegregated schools which comprise about three-quarters of all desegregated schools and enroll about one half of all black students attending desegregated schools--seem especially prone to extreme classroom resegregation. For example, at the high school level, predominantly black and entirely white classes are found in majority white schools at several times the rate that would be expected by chance. These patterns are most pronounced in the South and at the secondary school levels where school desegregation has been reported to be better accomplished than other regions or levels. In other words, when black students find a greater chance of school desegregation they are also likely to find a somewhat greater chance of classroom resegregation" (Morgan & McPartland, 1980). Resegregation is a major threat to desegregation in that it re-establishes racial isolation presumably eliminated by the reassignment of students from school to school. Among its other consequences, resegregation undermines the possibility for interracial/ethnic contact and equal status interactions, potentially limiting minority student achievement.

It is the purpose of this chapter to document the resegregative effects of common academic and disciplinary practices within American schools and to identify some of the reasons why these practices lead to resegregation.

There are several sources of resegregation in schools. The first, and most important, is the traditional response of schools to student diversity. Students are sorted and categorized and programs matched to their apparent needs. Behavioral standards are adopted to reduce diversity and students who do not conform are excluded. To the extent that race and ethnicity are associated with criteria used to sort or exclude students, these processes will result in racial imbalance of classes and racial disproportionality in exclusion. Resegregation results. This process may be allowed to continue because school officials may perceive a conflict between the goal of integration and other goals within the school setting and choose to resegregate because they think it is necessary to attain the highest possible levels of achievement for each child. The traditional practice of sorting students into apparently homogeneous groups may also continue because of a lack of administrative and instructional resources for effectively organizing schools in a different way for instruction.

Sarason (1971, p. 3) notes that: ". . . any attempt to introduce a change into the school involves some existing regularity, behavioral or programmatic." The paradox of desegregation may be that it often reinforces the traditional programmatic and behavioral regularities of schools which have the consequence of resegregating students within schools. Because desegregation requires comprehensive changes, it increases the complexity, uncertainty, and diversity with which school personnel must cope. These demands frequently overload the professional capabilities and the capacity for ambiguity that teachers and administrators possess. The need for reduction of that overload typically leads to a search for clarity and simplification that manifests itself in classifications, programs, and routines which are resegregative. In short, the demands for change brought about by desegregation result in the perpetuation or revival of the traditional responses of schools to diversity--such as the forming of homogeneous groups and the adoption of behavioral standards that reduce diversity which, de facto, increase racial isolation.

A second source of the resegregation of students may be found in the fragmented public policy making process. While courts and some agencies may be making policies which mandate or facilitate integration, other agencies may develop programs which seem at cross-purposes with integration. Just as the government supports both tobacco crops and warnings on cigarette packages, public policy about education is made in a variety of decision making arenas. They respond to different groups and different interests which ultimately may conflict. For example, categorical aid programs which require or allow disadvantaged students to be removed from the classroom for compensatory services will have a resegregative effect. Bilingual programs may be difficult to staff and run if students with limited English proficiency are scattered through a district and thus they may be clustered into certain schools and receive most of their instruction in segregated settings.

A third source of resegregation practices may be found in racism or in the inability of individuals within the school system to deal with cultural differences in a sensitive way. This may result at its harshest in blatant attempts to segregate minority students into particular classrooms or tracks. Or school personnel may have preconceptions about the abilities of minority students that increase the likelihood that these students will be classified into lower tracks. Or they may sort students into bilingual classes by ethnicity rather than language facility. Such insensitivity may extend to misperceptions of cultural behavior which causes students to be punished or suspended from school disproportionately by race or ethnicity.

The first and second of these sources of resegregative practices are benign in their intent. But by focusing on some legitimate educational goals to the exclusion of concern about wider impact, these approaches to targeting educational services have a negative impact on desegregation. The consequences of resegregation within the school are to destroy the potential for equal status contact between members of different racial and ethnic groups and to deny student exposure to similar educational expectations and experiences. Resegregation, thus impedes the basic goals of school desegregation: the elimination of racial stereotypes and prejudice; minority achievement; and, perhaps, the subsequent opportunities of minorities for economic success later in life.

The remainder of this chapter will focus on the traditional responses of schools to diversity, that is the academic/programmatic and social/behavioral regularities which have collided with desegregation. This includes the academic practices of ability grouping and tracking, compensatory educational services, special education and bilingual education, and discipline practices which lead to exclusion of students from school. Discussion of these practices will include (1) a description of the practice and related government mandates, (2) assessment of its resegregative effect, (3) evaluation of the relationship of the practice to desegregation, (4) a description of the effectiveness of the practice and rationale for its continuance as a programmatic regularity, and (5) identification of the reasons why these traditional practices are resegregative. The other sources of resegregation, that is, insensitivity and fragmented public policy making processes will be discussed, where appropriate, within the context of these programmatic and social/behavior regularities.

Resegregation As a Result of Assignment to Academic Programs

One set of policies and practices that can lead to resegregation are those related to the assignment or selection of academic programs. Schools typically sort students into homogeneous groups for instruction and these instructional groupings often entail different educational goals. The process by which such selection occurs includes use of a mix of objective and subjective criteria including standardized testing, recommendations of teachers, counselors, and other school personnel, and parent and student choice. The reasons for a student being in a particular program are complex, the research limited, but a clear outcome of the drive for homogeneity of instruction is resegregation. There are several dimensions of student diversity and a variety of grouping practices are used to attempt to address these differences. These include several forms of ability grouping, tracking and remedial programs for students thought to be in the wide normal range of ability; a variety of special education programs for handicapped students, and several ways of organizing instruction in bilingual education programs for students with limited English proficiency (LEP).

Ability grouping and tracking are the primary methods for separating students into homogeneous groups and thus a major force for resegregation. Ability grouping may refer to the practice of assigning students to separate classrooms on the basis of some assessment of their "abilities" or to similar within-class groupings of students. When these ability groups are rigid and students take all their subjects in a high or low group, students are sometimes said to be "tracked." In this report, tracking refers more narrowly to differentiated curricula for secondary students; schools usually offer college preparatory, general, and vocational tracks. In high school these practices are often combined, resulting, for example, in honors, regular, and remedial sections of courses within the various tracks. Core required courses that might allow integration of students in different tracks may also be ability grouped and correspond with track enrollment.

A smaller subset of low-achieving students may be eligible to receive compensatory educational services in reading and/or mathematics. Students who have more severe learning and/or behavioral problems may be identified as handicapped and are frequently grouped into special education classes for instruction. Among the most visibly diverse groups are students with Limited English Proficiency (LEP). These students are frequently identifiable by racial, cultural and linguistic differences. Bilingual education programs have been implemented to meet the needs of the growing numbers of LEP students.

This first section of the paper will (1) address the extent to which academic programs contribute to resegregation, both individually and as they interact with each other, and (2) will describe some of the reasons for racial imbalance in academic placement.

Ability Grouping and Tracking

Resegregation Through Ability Grouping

Use of among class ability grouping. Ability grouping among classrooms is a common practice. In elementary schools, students are often assigned to classrooms based on tests and/or teacher assessments of their abilities. In secondary schools, students are assigned to levels of courses, ranging from remedial to honors, on the basis of testing and school personnel judgments, including the implied judgment of ability groupings by previous teachers. The widespread use of ability grouping to sort students into classes is summarized in Table 1.

Table 1

Use of Ability Grouping in Schools

Sample	Percent Using Ability Grouping	Source
Southwestern Schools	66	U.S. Commission on Civil Rights (1974)
National Sample of 94 Elementary Schools	54	Epstein (1980)
937 School Districts in 7 Southern States	70	Mills & Bryan (1976)
82 Districts in Ohio	46	Tompkins (1978)
U.S., K-12 Classes	77	Findley & Bryan (1975)

Epstein (1980), in analyzing the 1974-75 data of the Effective School Desegregation Project conducted by the Educational Testing Service (ETS), found that approximately half of the 886 teachers reported ability grouping of their 5,284 students. Tompkins (1978) found a similar degree of ability grouping in her study of Ohio schools. The U.S. Commission on Civil Rights (1974) reported a somewhat more pervasive use of ability grouping in the Southwest. Findley and Bryan, in their 1975 review of the literature on ability grouping, report a considerably higher degree (77%) of ability grouping across the United States. Furthermore, they concluded that ability grouping is twice as likely to occur in high school placement than in elementary school.

Mills and Bryan (1976) confirmed this extensive degree of ability grouping in their analysis of the 1974-75 Office of Civil Rights (OCR) data from the seven southern states of Alabama, Florida, Georgia, South Carolina, North Carolina, Mississippi and Tennessee.

There is a strong possibility that available data on ability grouping and tracking underrepresent the practice. Carter and Segura (1979) comment on the difficulties of obtaining accurate reports on these practices and note in the Civil Rights Study conducted in the Southwest, "We feel that the principals were unable or, perhaps, unwilling to respond correctly. Very often the official policy of a school is [flexible] grouping and the result is tracking . . . students assigned to all low-ability-level academic subjects are essentially tracked despite the official practice of grouping [for particular subjects]."

Resegregation through among class grouping. Ability grouping tends to segregate children by race and social class with disproportionately more poor and minority children in lower levels and disproportionately more affluent and white children in higher levels. This conclusion is extensively documented in three literature reviews (Findley & Bryan, 1971; Esposito, 1971; Goldberg, Passow & Justman, 1966). Several studies of tracking and ability grouping in the Southwest find a similar pattern of disproportionate numbers of Hispanic students assigned to the lowest ability groups. Typically one in three Hispanic youngsters was assigned to a low ability group compared to one in seven Anglo students (U.S. Commission on Civil Rights, 1974).

As long as the well-documented relationship between measures of ability and race obtains, any desegregated school system that uses ability grouping extensively is likely to have high levels of resegregation. A recent study of a desegregated school district in Michigan illustrates this point. This district divided students into 12 ability levels for instruction. There was a high correlation between group placement, race and social class. Black and Hispanic students were predominant in the lower 6 groups while whites dominated the upper 6. Those whites who were assigned to lower groups were, for the most part, from poor families (Green & Griffore, 1978).

Use of within class grouping. Ability grouping also occurs within elementary classrooms for academic instruction, particularly in reading and math. Assessment of reading ability is usually the basis for grouping that may extend to other classroom activities (Haller, 1981). In the ETS study, 84% of the 886 elementary teachers questioned used ability grouping within their classrooms and those few teachers who chose not to use it had classes that they perceived to be relatively homogeneous (Epstein, 1980).

Resegregation through within class grouping. The impact of within-class ability grouping on resegregation is a complex matter. The classroom may not be racially identifiable; yet within-class grouping may establish a status arrangement or it simply may keep certain children together for parts of the day in ways that reduce interracial contact. If the fast reading group works with the teacher for 20 minutes, and then goes back to a table and sits together for seat-work for 20 minutes while the average group is with the teacher and then goes to the activity center for 20 minutes while the teacher works with the slow group, the students spend most of their classroom time interacting within their group. If the fast reading group is largely white and the slow reading group is largely black, interracial contact is substantially reduced. In this way, grouping that may be educationally defensible for one learning task spills over into activities where ability grouping is not needed and where it limits the diversity of each student's classroom contacts.

Ethnographic studies which begin to flourish in the 1970s have begun to document systematically these within classrooms social organizations and their impact upon children (Rist, 1970, 1978, 1979; Lawrence, 1969; Noblit, 1979; Collins, 1979). Rist's paper of 1970 focused upon a group of all black children observed in kindergarten, first grade and second grade. He argued that kindergarten teachers develop expectations about the academic potential of students based upon subjective interpretations of the attributes and characteristics of students. Most of those attributes are correlates of social class.

> First, the kindergarten teacher possessed a roughly constructed 'ideal type' as to what characteristics were necessary for any given student to achieve 'success' both in the public school and larger society. These characteristics appear to be a significant part related to special class criteria. Secondly, upon first meeting her students at the beginning of the school year, subjective evaluations were made of the students as to possession or absence of the desired traits necessary for anticipated 'success'. On the basis of the evaluation, the class was divided into groups expected to succeed (termed by the teacher 'fast learners') and those anticipated to fail (termed by the teacher 'slow learners'). Third, differential treatment was accorded to the two groups in the classroom with the group designated as 'fast learners' receiving the majority of the teaching time, reward directed behavior and attention from the teacher. Those designated as 'slow learners' were taught infrequently, subjected to more frequent control oriented behavior and received little if any supportive behavior from the teacher. Fourth, the interactional patterns between the teacher and the various groups in her class became rigidified, taking on test-like characteristics during the course of the school year with the gap in completion of academic material widening as the school year progressed. Fifth, similar processes occurred in later years of schooling, but the teachers no longer relied on subjectively interpreted data as the basis for ascertaining differences in students rather they were able to utilize a variety of informational sources related to past performances as the basis for classroom grouping.

If decisions about within-classroom organization made in kindergarten tend to separate children by social class, they will tend to separate children in desegregated classrooms by race as well. If, as Rist documents, teachers in later elementary years base their classroom organization on children's position in the previous year, then children are locked into a within-classroom grouping pattern which will eventually surface in separation among levels or tracks in the junior or senior high school.

Rigidity of ability grouping. Ability groups in elementary schools, both among classes and within classes, are frequently rigid with little chance for the students to be promoted as they progress. Early decisions, perhaps as early as kindergarten (Rist, 1970), may channel students permanently and result in track placement when they enter secondary school.

There is apparently little chance for an able student who comes to school with a lack of academic experience to make up the gap.

Epstein (1980) concluded from her analysis of the ETS data, that while "over half the teachers track students in the classroom by ability and over 80% regroup the children by ability within the classroom, only 25% report track assignment flexible enough to permit 20% of the students to change tracks from the time they entered to the time they leave the school. . ." Green and Griffore (1978) observed a similar pattern in a Michigan school district where once students were assigned to a track, there was little or no chance of escape from the time they entered to the time they left school.

The ability of students to catch up or be regrouped when their initial low ability grouping results from academic inexperience or misperception by the teacher, is likely to be restricted by the scope of educational programs for the slow group as well as by the rigidity of the typical grouping system. Rist's finding that less time and attention is spent on those perceived to be less able and presumably in need of special attention; has been borne out by other researchers. Oakes (1980) also found that less instructional time was spent with students at lower levels. After analyzing the texts and other instructional materials used by classroom groups, Green and Griffore (1978) concluded that a poorer curriculum was provided for lower groups. In his extensive review of ability grouping research, Froman (1981) found little evidence of differential instruction tailored to different group needs and concluded that lower groups were not taught in ways specifically designed to increase their ability to meet the basic instructional goals of the school.

One of the most extreme and well documented examples of racial isolation created by rigid ability grouping was found in the Washington, D.C. public school system in the 1960s. This system, which heavily relied on the use of group intelligence tests in assigning students to ability groups, was the subject of litigation which led to the abolition of that particular grouping system and to the prohibition of the use of group intelligence tests for purposes of grouping nationwide (Hobson v. Hansen, 1967; affirmed sub nom Smuck v. Hobson, 1969). The system and assignment process was abolished because the District Court, and subsequently the Circuit Court, found that blacks were channeled into lower ability groups on the basis of tests which did not measure inherent ability. Furthermore, the courts concluded that these lower tracks did not provide proper instruction, and resulted in "dead-end" placements, with little or no opportunity for student reassignment.

In summary. Ability grouping by class and/or within class is pervasive throughout the student's educational career in public schools. These ability groups tend to be racially segregated with minorities assigned to lower levels. Furthermore, group assignments made early in elementary school persist through secondary school. Given differences in instructional time, quality, and expectations for achievement during the elementary grades, it may be concluded that different educational goals have been established for these groups. The differences in achievement that result from these elementary groupings will be used to track students into high school programs with explicitly different educational goals.

Resegregation Through Tracking

Use of tracking. American comprehensive high schools generally offer a differentiated curriculum for students. The use of the term "tracking" in this report is applied restrictively to describe this curricular differentiation in high schools. Track selection, usually made in grades 9 or 10, is based upon prior achievement, student (and perhaps parent) preference, counselor or teacher recommendations, and program availability. While participation in a track usually implies a set core of courses, students occasionally take classes outside their track. College preparatory students may take some general or vocational courses; general students may take some vocational courses; vocational students may take some general courses; usually vocational and general students do not take college preparatory courses.

Tracking is related to ability grouping practices in that children in high ability groups generally choose a college preparatory curriculum over general or vocational tracks and low ability group children choose vocational and general tracks more frequently than college preparatory tracks.

In some schools, students are ability grouped or leveled within tracks. For example, college preparatory students may take regular, honors, or advanced placement English courses. It is not uncommon for common or untracked courses to be effectively tracked due to scheduling constraints or patterns of electives taken by students.

Resegregation among tracks. High school track selection tends to resegregate. According to an analysis of the National Longitudinal Study of 1972, white males are overrepresented in the academic track, underrepresented in vocational tracks and proportional in general tracks. Black males are overrepresented in general tracks, underrepresented in academic tracks and proportional in vocational tracks. White females are overrepresented in academic and vocational tracks and underrepresented in general tracks. Black females are strongly overrepresented in general tracks, underrepresented in academic tracks and roughly proportional in vocational tracks. Racial and gender concentrations in these tracks are presented in Table 2. Other minorities tended to follow the pattern of blacks, both male and female (Harnischfeger & Wiley, 1980).

Table 2

Percentage Decomposition of Population of High School Tracks*
for Males, Females, and White, Black and Other,
for High School Seniors (1972)

		Academic	General	Vocational	Total
White -	Male	45.3	41.8	35.6	41.7
	Female	43.2	34.0	44.5	40.4
	Total	88.5	75.8	80.1	82.2
Black -	Male	2.3	6.1	4.4	4.1
	Female	3.3	7.5	5.9	5.4
	Total	5.6	13.6	10.3	9.5
Other -	Male	3.4	5.0	5.0	4.3
	Female	2.6	5.5	4.6	4.0
	Total	6.0	10.5	9.6	8.3
Total -	Male	51.0	52.9	45.0	50.1
	Female	49.1	47.1	55.0	49.9
	Total	100.0	100.0	100.0	100.0

*Track membership as determined by the school.

Source: Harnischfeger & Wiley, 1980.

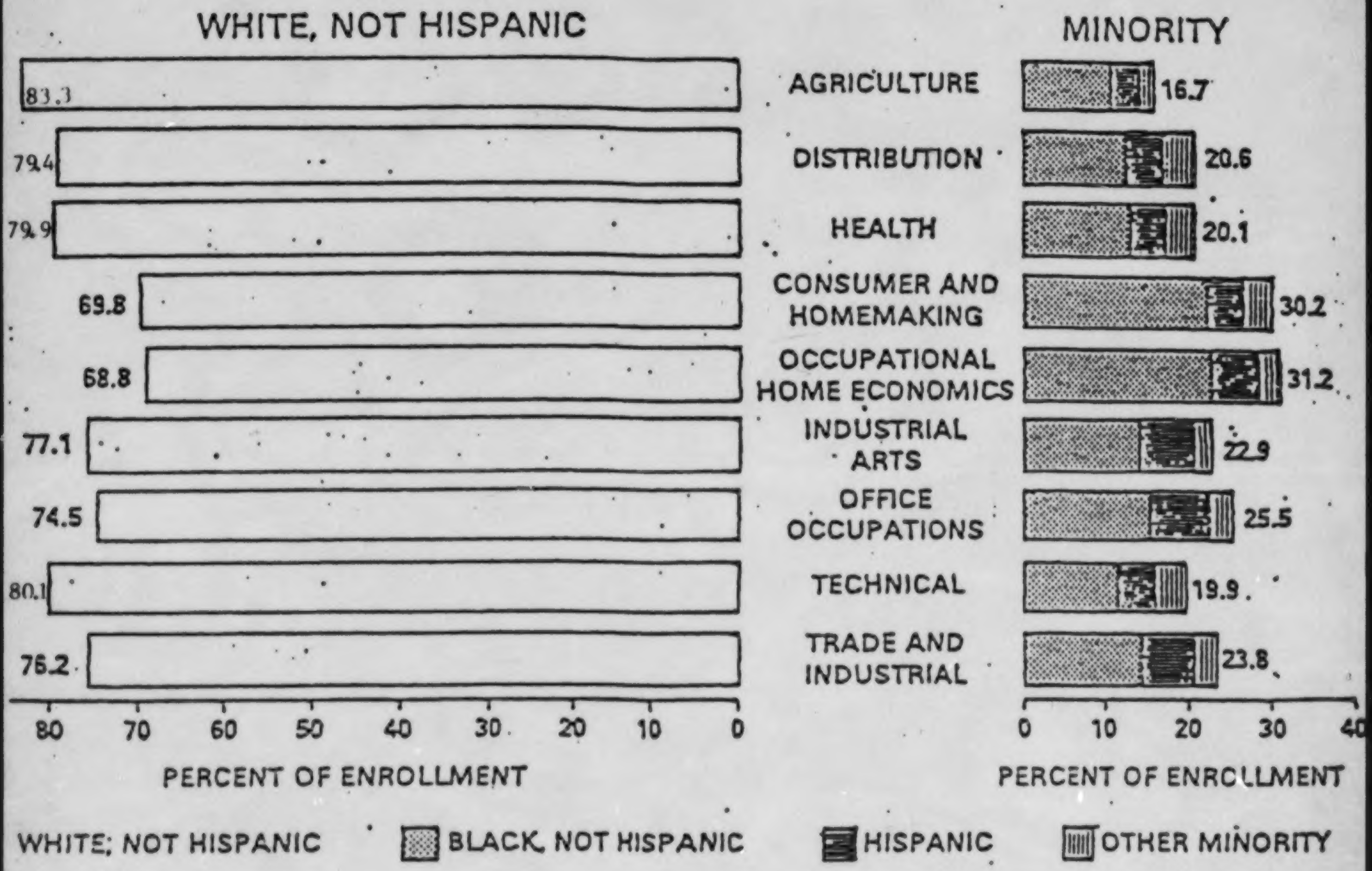
There is considerable evidence that Hispanic students in the Southwest are disproportionately placed in the low ability track (U.S. Commission on Civil Rights, 1974). Carter and Segura (1979) argue on the basis of their field observations that use of tracking is related to proportion of Hispanos in the school; the more Hispanos, the more likely rigid tracking will be used. They also note early evidence that Hispanic youngsters are more likely to be placed disproportionately in vocational tracks and are underrepresented in the academic curricula.

Resegregation within vocational tracks. Resegregation also occurs within the vocational track. Recent analysis by the National Center for Education Statistics of the racial composition of various programs within vocational education indicate racial concentrations in particular programs. Black females particularly are concentrated greatly in consumer and homemaking, occupational home economics and office occupations. About 20% of the students in vocational education are minority group members. The figure on page 16 shows clearly the minority overrepresentation in homemaking programs. Office and trade and industrial show more modest overrepresentation of minorities (Wulfsberg, 1980). The Michigan study (Green & Cohen, 1979) also shows black females overrepresented in homemaking courses.

In summary. High school tracking practices lead to extensive resegregation with minority students disproportionately overrepresented in vocational or general tracks and underrepresented in college preparatory tracks. The effects of tracking are cumulative; the track may also determine enrollment in electives and differing levels of supposedly common, ungrouped courses. Furthermore, there is some evidence that different racial patterns exist within the vocational track, with black females likely to be highly concentrated in homemaking and consumer programs.

Figure I

RACIAL/ETHNIC DISTRIBUTION OF VOCATIONAL STUDENTS IN INSTITUTIONS OFFERING FIVE OR MORE VOCATIONAL PROGRAMS, BY PROGRAM AREA: 1979



Source: Wulfsberg, 1980.

The Relationship of Tracking and Ability Grouping to Desegregation

There is no evidence specifically linking tracking and ability grouping practices to implementation of desegregation plans. It is not known if minority involvement in academic tracks has increased, decreased or stayed the same in districts where desegregation has been carried out.

There are, however, two studies which focus in detail on grouping patterns within desegregated schools. They yield findings consistent with the general pattern noted in the analysis of the NLS data, that sorting processes do act to resegregate students.

For example, a comprehensive report on a desegregated school district in Michigan concluded:

> The pattern of racially disproportionate representation is consistent. Black students were never overrepresented in the accelerated classes. They were never overrepresented in College English classes, in select math classes, nor in advanced biology courses. While the District has stated that students freely make their own choices of classes in which they enroll, in reality, little free choice is involved. Once a student is placed in a reading class (for students achieving at 5th grade level or below), this limits other "free choices," not only at the time the decision is made, but for all subsequent school years." (Green & Cohen, 1979)

Larkins and Oldham (1976) investigated patterns of racial separation in a desegregated high school in a small town in Georgia. There were 825 students in the only high school in town; 65% were black and 35% white. Two hundred students in nine American history classes were sampled for the study; systematic observations were done over a three month period and standardized achievement scores recorded. This school offered two diplomas, one for college preparatory work and the other for career development. Students were tracked into classes by CAT scores.

Low scoring students took remedial reading and were barred from English courses ranging from Shakespeare to the supernatural. Twenty-eight percent of black students scored in the low reading group compared to 1.5% of the white students. Fifty-six percent of white students were in the high achievement category for reading compared to 5.3% of black students. Math courses were similarly tracked with blacks tracked into courses leading to a vocational diploma such as business math or into remedial courses, while whites took algebra, geometry, and trigonometry (Larkins & Oldham, 1976).

Both Green, and Larkins and Oldham found that tracking had spillover effects on scheduling of common courses, on electives and on non-curricular aspects of the school program. In the Georgia study, different sections of American History classes were extremely racially unbalanced, presumably due to schedule conflicts; there were racial patterns in the selection of social studies electives; there were racial patterns in seating within classrooms; extracurricular activities tended to be segregated; and there was relatively little interracial communication (Larkins & Oldham, 1976).

Trent recently conducted intensive interviews with from 4 to 8 persons in each of 18 school districts across the nation that have implemented court-ordered desegregation plans. Sixty percent of the respondents reported that resegregation had occurred within schools with ability grouping and tracking generally suggested as the cause. There were only three districts of the 18 where a majority denied that resegregated classrooms existed (Trent, 1981).

There is also evidence to suggest that the use of rigid grouping or tracking practices is related to the racial composition and perceived heterogeneity of the student body and to teacher attitudes about integration.

Morgan and McPartland (1980) noted, in their analysis of patterns of resegregated classrooms within schools, that maximum resegregation occurred in schools that were racially balanced. Those schools with between 40% and 50% white students were most likely to resegregate.

Epstein (1980) attempted to identify factors associated with the patterns of resegregation noted by Morgan and McPartland and found both race and student diversity to be important. The use of tracked classes in elementary school was related to the proportion of black students in the school. Schools with high proportions of black students were most likely to track, particularly if low proportions of blacks were achieving at grade level and discipline was seen as a problem.

Teacher race, attitudes towards integration and the availability of support services also contributed to selection of tracking. Schools with a high proportion of black teachers and compensatory services for students with special needs were most likely to track. More flexible grouping arrangements were selected more often if the teacher's race was white and if students rated high in motivation. Equal status programs, such as class projects and discussions on race, and multi-racial texts were also associated with flexibility.

Selection of an active learning strategy, in which teachers and students share responsibility for the students' learning and behavior, contrasts sharply with selection of compensatory programs. While active learning is a function of positive motivation, proportionately high good discipline, positive support for integration and teacher race (white), compensatory programs are selected most often when perceived motivation is low and when other tracking procedures and teacher support services are part of the school program.

Significantly, low teacher support for integration was associated with both tracking into classes and use of rigid ability grouping within classes (Epstein, 1980). The association of teacher support for integration with the choice of equal status programs and flexible grouping was also noted by Gerard and Miller (1976). They found low teacher prejudice associated with use of classroom techniques that facilitated interracial contact.

Thus, while the use of tracking and grouping is an approach to dealing with student diversity that antedates desegregation, there is reason to believe that its resegregative effects are not entirely incidental. The testing and assessment procedures which frequently determine placement may misclassify a disproportionate number of minority children. Professional judgments may be influenced by class or race bias. And, according to Epstein, the selection of rigid tracking and grouping procedures is itself associated with negative attitudes towards integration.

The Persistence of Ability Grouping and Tracking as a Programmatic Regularity

In spite of the evidence that tracking and grouping resegregates students there is considerable professional resistance to relinquishing it. Historically, ability grouping and tracking have dominated school organization in the U.S. and elsewhere in the world. The practices enjoy tremendous support from school professionals (NEA, 1968) who find it administratively convenient, consistent with the value of maximizing individual achievement, and necessary for the group instructional methods commonly in use in the schools. This support for homogeneous grouping is apparently rooted in the belief that it is the best choice for meeting the learning needs of students of diverse academic backgrounds. This view that students are best taught in homogeneous groups is not supported by several decades of research on ability grouping. This is particularly true if the following criteria are used for evaluation: (1) cognitive achievement, (2) affective outcomes, and (3) equity.

Froman (1981) conducted an extensive review of the ability grouping literature; meta-analysis was not possible because much of the literature is methodologically weak or not comparable. He was able to draw a number of conclusions which are consistent with the views of others who have surveyed this field (e.g., Esposito, 1971; Findley & Bryan, 1975; Goldberg, Passow & Justman, 1966).

There is some evidence that high ability students may benefit in cognitive achievement from tracking, but no evidence that it benefits middle groups, and low groups tend to fall behind. Interestingly the positive evidence tends to be found in early studies and not in later, better controlled studies (Froman, 1981). In contrast, there is some evidence that low and average students make cognitive gains in heterogeneous classes (Marascuilo & McSweeny, 1972).

Tracking and ability grouping may themselves contribute to the lower achievement of those assigned to lower tracks. As has been noted earlier there is evidence of less attention and instructional time devoted to children classified as low ability, and the goals of instruction may vary. Once assigned to a low track, both the quality of instruction and the procedural rigidities of most tracking structures militate against students catching up with their more advanced peers. This is particularly inequitable when the initial placement is influenced by race-related judgments or apparent gaps in achievement that result from different experiences rather than genuine differences in ability.

In an attempt to demonstrate the invidious effects of track placement itself on achievement of minority students, Tuckman and Bierman (1971) arbitrarily moved 421 black high school students to the next higher ability group; 384 comparable students remained with their assigned group. They found that those promoted achieved at a higher level on standardized tests and that their promotion affected their teachers' perceptions of their ability. Fifty-four percent of those promoted arbitrarily were recommended for the next highest group, compared to 1% of the control group.

Tracking also has a negative effect on the self-esteem of lower groups and may inflate the self-regard of high groups (Froman, 1981). While the association of self-esteem with achievement is not well understood, a system which leaves many students with low self-regard which does not clearly promote achievement can be questioned. This is particularly true since it leads to resegregation, making the interracial contact sought as one goal of integration less possible.

The persistence of tracking and ability grouping in spite of evidence of their lack of effectiveness and their clear resegregatory effects in desegregated schools may result partly from a lack of skills and resources of school personnel for coping with heterogeneous groups of students. Teachers have few resources for instructing students with techniques that work well with heterogeneous groups; and there is evidence that they may be less successful when faced with highly diverse student bodies equipped with traditional instructional techniques (Evertson, Sanford & Emmer, 1981).

It is also administratively simpler to divide a school or classroom into groups and deliver all services to students in those groups. Homogeneous grouping that may be useful for one learning task then extends to experiences which could be as effective with heterogeneous groups. At the school level, administrative ease sometimes leads to tracking based on compensatory program delivery (Kimbrough & Hill, 1981).

When schools provide compensatory or other services that facilitate dealing with children in homogeneous groups, the likelihood of this occurring increases. Where support services to the teacher includes assistance with flexible grouping and equal status programs, then tracking is less likely to be the choice (Epstein, 1980).

In summary. Teachers and administrators persist in support of homogeneous grouping in spite of (1) its clear resegregative impact and (2) considerable evidence to suggest that it is likely to result in lower achievement for low and average students and little evidence to support its utility for high ability students. This continuing use of these techniques may result from the lack of instructional and organizational resources for dealing with heterogeneous groups of students. The association of attitudes about integration with the choice of rigid tracking also suggests that the resegregative effect of ability grouping and tracking may not always be incidental to other educational goals.

Compensatory Education Programs

Numerous federal and state education programs have been enacted in the past two decades in the interest of increasing the equality of educational benefit for various populations. By both judicial and legislative action, provision of remedial or compensatory educational services has been required for poor and low-achieving children and children in minority-isolated and recently desegregated schools.

Title I of the Elementary and Secondary Education Act (ESEA) distributes funds to school districts for the provision of compensatory services to economically and educationally disadvantaged children. The enactment of ESEA in 1965 paralleled the passage of major civil rights and anti-poverty legislation and reflects similar assumptions and broad social purposes.

The focus on special services for poor children recognizes the relationship between poverty and poor academic performance (NIE, 1976). In attacking that relationship, compensatory education attempts to reduce future poverty through educational reform (NIE, 1976).

The specific objectives of Title I are:

1. To provide funds to LEA's in relation to the number of low-income children, and to schools with the highest numbers of low-income students;
2. To provide special services for low-achieving children in the poorest schools;
3. To contribute to the cognitive, emotional, social, or physical development of the children served (NIE, 1976, p. xiii).

The legislative history of Title I indicates that aid to economically disadvantaged children was also viewed by Congress as a vehicle for widespread educational improvement, since concentrations of poor children may strain school districts' abilities to provide adequate programs for all students (NIE, 1976). Some lawmakers and many school officials saw Title I as a source of general aid to education (McLaughlin, 1975). One characteristic of the legislation that garnered political support was its allocation formula, which assured wide geographical distribution of funds and did not require competition for funds among eligible school districts (Bailey & Mosher, 1968). Advocates for the use of Title I as a source of focused aid to poor children saw its evaluation and reporting requirements as a tool for ensuring that, within school districts, the funds would be used as intended (McLaughlin, 1975).

Title I funds are, in fact, widely distributed, with 90% of all school districts and 90% of all eligible schools receiving funds (NIE, 1976). While evaluation reports in the early years of the program's implementation indicated substantial misuse of funds for general educational purposes, in recent years instances of noncompliance have been rare (Goettel, 1978). The fact that only 57% of eligible children receive Title I services is due to overall appropriation levels and to the "concentration" requirements in allocation of funds (NIE, 1976). (The concentration provisions stipulate that only schools with proportions of poor students exceeding the district's average are eligible for funds; those actually receiving funds are limited so that funds are sufficiently concentrated to achieve quality programs. Within participating schools, the number of eligible students--those meeting a criterion of educational need--who receive services is correspondingly limited.)

While social and other support services are permissible expenditures, the bulk of local Title I allocations (76%) are spent on instructional services. Of this instructional budget, 53% goes for reading instruction, 19% for mathematics, and 10% for language arts (NIE, 1976).

The Emergency School Aid Act (ESAA) provides assistance to school districts for purposes related to implementing desegregation and overcoming minority group isolation. As enacted in 1972, ESAA defined three classes of objectives that fall under the general intent of the program: 1) meeting needs arising from the elimination of segregation and discrimination among students and faculty; 2) reducing or preventing minority group isolation; 3) overcoming the educational disadvantages of pupils in minority group isolated schools (those with over 50% minority enrollment) (Smith, 1978).

A wide variety of activities were authorized under ESAA, including inservice training for teachers, guidance and counseling services, community and extracurricular interracial activities, and remedial services. Two characteristics of the program distinguish it from Title I and other categorical education programs: recipient districts must be implementing a desegregation plan or a plan to reduce or prevent minority group isolation, and they must have eliminated discriminatory practices affecting students and faculty, including segregative classroom assignments and grouping practices. "ESAA is thus the only equal educational opportunity-oriented program which requires the elimination of discriminatory barriers to equal educational opportunity prior to receipt of funds" (Smith, 1978).

Until 1978, however, ESAA looked much like Title I; it appeared to operate as another compensatory education program in many districts. The primary determinant in allocating funds was the size of the district's minority enrollment, not the impact of its desegregation plan on reduction of minority group isolation, or the recency of implementation of the plan. Most ESAA projects provided direct remedial services to disadvantaged students; the program was seen as a complement to Title I but with more flexibility in determining school and student eligibility (Smith, 1978). Remedial activities were clearly permissible under the third purpose of the Act, but not necessarily consistent with the intent of meeting desegregation-related needs.

The disjuncture between the stated purpose of ESAA and the specific uses to which funds were put appears to have originated in the politics of the program's enactment. It was proposed by the Nixon Administration as part of its "southern strategy" to minimize the differential impact of desegregation enforcement on the Southern states at a time when massive student reassignment was occurring in the South. Both the President and many Congressmen wanted to ensure that the money would not be spent on busing (ACIR, 1981). The compromise that was struck allowed funds to be used either to further desegregation per se, or to ameliorate the effects of racial isolation through compensatory services that left such isolation unchanged. The resulting legislation gave broad scope to the definition of desegregation-related needs and allows considerable leeway in the degree of actual desegregation a school district must accomplish. For example, a district with no desegregation plan but with more than 50% minority enrollment may participate if it maintains at least one integrated school. Individual schools with over half minority group students may receive assistance even if unaffected by the district desegregation plan (Smith, 1978).

The Education Amendments of 1978 included substantial revision of ESAA aimed at clarifying the objectives of the program and re-structuring it to facilitate the achievement of these purposes. The third purpose of the 1972 Act--to overcome educational disadvantages of pupils in predominantly minority group schools--was deleted, thus circumscribing the use of funds for compensatory education. Such usage is restricted to providing services for schools and students who have lost Title I eligibility due to the effects of a desegregation plan. While funds are still apportioned among states according to the size of minority enrollment, school district applications are ranked according to two characteristics of the district desegregation plan: net reduction in minority group isolation, and recency of implementation. These amendments should have the effect of focusing ESAA funds on desegregation assistance and related within-school issues, evaluative data is not yet available.

In addition to these federally mandated programs, 12 states operate their own compensatory education programs. The federal programs themselves have several offshoots for particular groups of disadvantaged children in addition to their major provisions. Title I, for example, funds separate programs for children of migrant workers.

Resegregation Through Compensatory Programs

Student assignment. There is disproportionate minority student participation in compensatory education programs, see Table 3. ESAA, by its very definition, is intended to serve the needs of these students. Blacks, Hispanos, and other minority students are represented to a greater degree in the low-income and low-achieving categories, and consequently among Title I selectees, than are white students (Breglio, Hinkley & Beal, 1978).

Table 3

Percent Enrollment in Compensatory Education Programs

	Public Elem. School Enrollment[1]	Enrollment in Title I LEA's[2]	Enrollment in Compensatory Ed.[2]	Enrollment in Title I Reading[3]	Enrollment in Title I Math[3]
White	77.9	74.8	54.0	64.0	46.7
Black	13.9	19.5	34.5	24.7	36.6
Hispanic	6.1	4.8	9.8	9.2	14.2
Other (Asian & Native American)	2.1	.8	1.6	2.1	2.4

[1] Breglio, Hinkley & Beal, 1978
[2] NIE 1976; includes state-funded CE programs as well as Title I.
[3] Hinkley, Beal & Breglio, 1978
(all are sample estimates)

However, this overrepresentation is not solely the result of disproportionate poverty and low achievement. Breglio et al. (1978), in a major NIE-funded evaluation, show that within categories of economic status and educational performance, greater percentages of minority students than of whites are selected for Title I (see Tables 4, 5, and 6). The figures for other compensatory education services are less reliable because some of the school districts surveyed apparently included bilingual education as a compensatory program.

Table 4
Estimated Population Percentages of Students' Compensatory Education Selection Status By Family Economic Status and Racial/Ethnic Group

Economic Status	Title I/Title I Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
	CE Selection Status				
POOR/ADFC - below Orshansky poverty line or AFDC recipient					
Racial/Ethnic Group					
White	26.5	10.1	55.1	8.3	100.0 (2,011)
Black	32.7	8.8	51.3	7.3	100.1 (1,501)
Hispanic	28.9	18.2	51.0	2.0	100.1 (556)
Other*	38.4	6.2	35.0	20.3	99.9 (113)
NON-POOR					
Racial/Ethnic Group					
White	9.4	9.7	65.4	15.5	100.0 (13,546)
Black	18.8	8.3	54.9	17.9	99.9 (1,266)
Hispanic	24.0	17.8	53.6	4.6	100.0 (696)
Other*	5.2	4.9	42.5	47.4	100.0 (317)
Total Count (Thousands)	2,941	2,000	12,264	2,801	20,006

*"Other" category includes Native Americans and Asian Americans. The sample sizes for these groups preclude individual analyses. Because of the heterogeneity of this category and the small cell sizes in the table, the figures should be interpreted with caution.

Source: Breglio et al., 1978.

Table 5
Estimated Population Percentages of Students' Compensatory Education Selection Status By Basic Achievement and Racial/Ethnic Group

	CE Selection Status				
Basic Achievement*	Title I/Title I and Other CE (%)	Other CE Only (%)	No CE at CE School (%)	No CE at Non-CE School (%)	TOTALS (%) (Thousands)
LOW ACHIEVER - at least 1 year below grade level on standardized achievement test					
Racial/Ethnic Group					
White	27.0	17.1	43.2	12.7	100.0 (2,195)
Black	35.4	10.8	40.8	13.0	100.0 (1,082)
Spanish	41.4	18.3	37.1	3.2	100.0 (437)
Other	35.9	7.7	28.0	28.4	100.0 (83)
REGULAR ACHIEVER					
Racial/Ethnic Group					
White	9.0	8.4	66.9	15.7	100.0 (10,595)
Black	19.6	7.0	61.3	12.1	100.0 (1,156)
Spanish	18.3	15.6	62.1	4.1	100.1 (553)
Other	8.3	5.0	42.1	44.6	100.0 (264)
Total Count (Thousands)	2,495	1,645	9,821	2,404	16,365

*Grades 2-6 Only

Source: Breglio et al., 1978

Table 6
Estimated Population Percentages of Students' Compensatory Education Selection Status By Family Economic Status, Basic Achievement, and Racial/Ethnic Group*

Economic Status and Educational Status	CE Selection Status Title I/Title I and Other CE (%)	Other CE Only (%)	No CE (%)	TOTALS (%)
POOR/AFDC LOW ACHIEVER				
Racial/Ethnic Group				
White	39	16	45	100
Black	41	10	49	100
Hispanic	38	20	42	100
NON-POOR LOW ACHIEVER				
Racial/Ethnic Group				
White	24	17	59	100
Black	28	11	61	100
Hispanic	45	16	40	101
POOR/AFDC REGULAR ACHIEVER				
Racial/Ethnic Group				
White	20	7	72	99
Black	24	7	68	99
Hispanic	25	12	63	100
NON-POOR REGULAR ACHIEVER				
Racial/Ethnic Group				
White	8	8	84	100
Black	15	7	79	101
Hispanic	14	18	69	101

*Grades 2-6 only; N of "Other" Racial/Ethnic Category too small to represent in table.

Source: Breglio et al., 1978

Program organization. Student "pullout" is the dominant method of delivering Title I services (see Table 7). It has been estimated that 75% of compensatory aid removes the child from the regular classroom and for about one-third of those involved in pullout programs, all instruction takes place in settings with other CE students (Poynor, 1977).

Table 7

Organization of Compensatory Programs

CE Subject	% CE students served by pullout	% CE students served in regular class
Reading	85.3	14.7
Language Arts	65.5	34.5
Math	62.6	37.4

Source: NIE, 1976, pp. III-67

There is also evidence of substantial use of pullout in ESAA (Wellisch, 1979) and state-funded compensatory programs (Brookover, Brady & Warfield, 1981).

The average amount of time spent in compensatory education is 5½ hours per week or about one-fourth of the student's total available learning time. Average hours per week by subject are: reading and language arts--4 hours; math--3 hours. The overall average is higher due to the many students who receive CE in more than one subject. Students in pullout programs miss regular instruction in a variety of subject areas, not infrequently in those that are targeted for remediation such as reading or math (NIE, 1976).

National evaluations of Title I (Hinkley et al., 1978) have shown that minority students receive above-average hours of compensatory reading and math instruction delivered in small groups by special teachers (see Tables 8, 9, 10, 11).

Table 8
The Relationship of Race/Ethnicity to Time Spent in Reading and Math Instruction

Race	Mean Hrs. Reading Instruction Offered	Mean Hrs. Reading Instruction Attended	Mean Hrs. Math Instruction Offered	Mean Hrs. Math Instruction Attended
Majority	243.03	230.57	171.87	163.05
Minority (Black, Hispanic, Asian, Native American)	255.21	238.56	184.76	172.91

Table 9
The Relationship of Student Selection for Compensatory Education to Time Spent in Reading and Math Instruction

CE Selection Status	Mean Hrs. Reading Instruc. Offered	Mean Hrs. Reading Instruc. Attended	Mean Hrs. Math Instruc. Offered	Mean Hrs. Math Instruc. Attended
Title I	277.79	258.94	199.48	185.51
Other CE only	254.64	238.97	172.69	161.69
No CE	238.93	226.82	172.71	163.79

Table 10
The Relationship of Race/Ethnicity to Time Spent with Special Instructors and Small Groups for Reading and Math Instruction

	Mean Hrs. Reading Instruc. Attended			Mean Hrs. Math Instruc. Attended		
Race	with Reg. Teacher	with non-Reg. Teacher	in Class size 2-13	with Reg. Teacher	with non-reg. Teacher	in class of 2-13
Majority	133.99	16.34	88.85	100.88	6.20	27.71
Minority	134.22	31.23	105.67	105.11	16.14	45.93

Table 11
The Relationship of Student Selection for Compensatory Education to Time Spent with Special Instructors and Small Groups for Reading and Math Instruction

	Mean Hrs. Reading Instruc. Attended			Mean Hrs. Math Instruc. Attended		
CE Selection	with Reg. Teacher	with non-Reg. Teacher	in Class of 2-13	with Reg. Teacher	with non-Reg. Teacher	in class of 2-1
Title I	128.95	64.58	141.60	101.87	39.24	68.43
Other CE only	122.31	43.73	128.98	87.58	18.94	52.30
No CE	136.52	8.63	79.10	103.40	4.54	27.20

In addition, researchers conducting exploratory studies of small numbers of schools have found pullout to result in resegregation. Kimbrough and Hill (1981) observed racial segregation in Title I and ESAA (and special education and bilingual education) pullout programs. Brookover et al. (1981) found resegregation (more than 15% higher minority group participation than minority group school enrollment) in Title I and state CE programs. Observations of samples of compensatory education students confirmed that they were pulled out from less to more racially segregated settings.

Due to minority overrepresentation in compensatory programs, combined with the reliance on pullout for CE services, minority students spend a greater amount of instructional time with special teachers and in small, more segregated groups.

The Relationship of Compensatory Programs to Desegregation

Several authors have noted an inherent tension between compensatory education and integrated education as strategies for increasing equality of educational opportunity. Compensation is seen as requiring the concentration of disadvantaged students for intensive remedial treatment, while integreation relies on the dispersion of minority students among their more advantaged peers and in schools of better quality (Levin, 1978; Radin, 1978). This conflict has been observed especially with regard to the operation of Title I programs in desegregating school systems, where students and schools may lose services due to changing patterns of attendance imposed by desegregation plans (Berke & Demarest, 1978; Thiemann & Deflaminis, 1978). This situation has been ameliorated by changes in Title I eligibility criteria for students affected by desegregation, and by the use of ESAA funds for compensatory education for schools and students who lose Title I eligibility due to desegregation (NIE, 1977; Hawley & Barry, 1980). The point remains, however, that direct service compensatory programs may be difficult to implement simultaneously with desegregation without resulting in resegregation. The potential for resegregation through compensatory services in exacerbated in schools that operate several categorical programs and have substantial numbers of students who are eligible for more than one type of service. Typically, these schools place multiply eligible children in every program for which they qualify, resulting in numerous pullouts or, in some cases, the establishment of a separate track based on compensatory program participation (Kimbrough & Hill, 1981).

Compensatory Education as a Programmatic Regularity

A fundamental value of the school system is the academic achievement of its students. It is from the commitment to enhanced academic achievement, especially for low achievers from poor families, that compensatory education has developed. As was noted in an earlier section, school personnel find it administratively easier and instructionally convenient to organize homogeneous groups of children for teaching purposes. Epstein (1980), in her study of factors associated with patterns of resegregation, found that compensatory programs are selected most often when perceived motivation is low and when other tracking procedures and teacher support services are part of the school program. The need to provide services to low-achievers is not questioned here; rather, the question which must be asked is: Why do school systems rely on pullout, a resegregative technique, for delivery of such services?

Efficacy of pullout. As long as minority group students are disproportionately counted among the recipients of compensatory and other categorical services, pullout will result in a degree of resegregation. Whether or not this trade off between compensation and integration is justified depends to no small extent on the educational efficacy of pullout programs. There are a number of grounds on which pullout could be expected to be an effective way to provide remedial services: instruction is given in a smaller group, usually by a specialist teacher; these two factors allow for more individualized and suitable instruction (NIE, 1976). On the other hand, pullout could have negative effects in addition to resegregation: pulled-out students may miss regular instruction in some part of the core curriculum; there may be conflicts between the content of regular and compensatory instruction; especially when students experience multiple pullouts, the result approaches a form of ability grouping for a large part of the day (NIE, 1976; Kimbrough & Hill, 1981).

Teachers' reports in evaluations of Title I indicate that while many pullouts take place during students' study periods, a substantial proportion replaces the remediated subject or some other core subject (NIE, 1976). Teachers and aides in one case study reported that most compensatory students missed regular reading or math, the subject for which they were pulled out (Brookover et al., 1981). Kimbrough and Hill (1981) also observed frequent instances of substitution of CE classes for regular ones in the same subject. In addition, they found that students in multiple pullout programs could miss regular instruction in some subjects, usually social studies and science, during most of their elementary school career.

The impact of compensatory programs on educational achievement has been a controversial subject since the earliest evaluations of Title I. Large scale evaluations in the early years of Title I consistently failed to show significant achievement gains for participating students (see McLaughlin, 1975, for discussion of these evaluation efforts). An alternative evaluation strategy has been to examine the characteristics of Title I projects identified as successful. One such study included among the common elements of success the use of small groups or individual instruction, specially trained teachers, and high treatment intensity, all characteristics associated with pullout (Hawkridge et al., 1968, cited by McLaughlin, 1975). However, a later study by the Educational Testing Service indicated that pullout may not be the most effective approach. Although the ETS study found little difference in achievement gains between Title I and other students, there were differences within the Title I group. Compensatory students who were in reading classes with non-CE students gained more than those who were in separate reading classes (Rossi, McLaughlin, Campbell & Everett, 1977).

More recent Title I evaluations have specifically addressed the issue of pullout vs. mainstream delivery of compensatory services, but with equivocal results. This is at least partially due to the near-universal use of pullout; there are few mainstream Title I programs to provide comparisons. The Instructional Dimensions Study included instructional setting (pullout vs. mainstream) as a variable and found significantly larger gains for mainstream students in first grade reading and math achievement and third grade reading achievement. Only 10% of that category, however, were receiving mainstream compensatory services (e.g., from a classroom aide or consultant teacher); the rest were non-Title I students (Poynor, 1977).

The most appropriate conclusion to draw from this research is that while pullout has not been supported on achievement grounds, no particular mainstream approach has been adequately evaluated to make any statement about its effects. In any event, the impact of pullout on achievement does not appear to offset its resegregative effects.

Reasons for pullout. If the educational efficacy of pullout does not provide an adequate rationale for its widespread use, what accounts for its predominance in Title I and other categorical programs? While neither the legislation nor the regulations stipulate the setting in which services are to be delivered, there are several requirements that make pullout seem the obvious way to achieve compliance:

1. Title I funds must not be co-mingled with other revenue sources, but rather spent on identifiable services.
2. The services must be provided only to the identified, eligible students within school (usually not all eligible students are served, due to the concentration requirement).
3. The services must "supplement, not supplant" the regular services provided to all students.

These provisions require that Title I provide a recognizable program for targeted students that, is in addition to the regular school program. The easiest way for schools to do this has been to separate Title I students from others for the compensatory services. Ironically, this practice has resulted in a form of supplantation when students are pulled out from regular class instruction. Glass and Smith (1977) argue that this interpretation of Title I requirements has been encouraged by the enforcement posture of the U.S. Office of Education, which has placed strong emphasis on the targeting of funds and services. This predominant concern that only eligible children receive services was strengthened over the years due to the unfavorable evaluations of Title I in its first 5 years, showing little impact on achievement and documenting misuse of funds (Glass & Smith, 1977). Descriptions of specific programs in desegregating districts provide examples of changes from classroom aides to pullout programs and of reductions in schools and students served in the early years of Title I implementation (U.S. Office of Education, 1974). In general, the monitoring and enforcement system has been tightened in recent years, with the result that instances of noncompliance in the use of Title I funds have become rare (Goettel, 1978). Local staff perceptions of why pullout is the norm support the conclusion that school districts see it as the easiest way to satisfy federal and state regulations (Brookover et al., 1981).

An opposing view is that, in schools with sufficient concentrations of poor and low-achieving students, all students could benefit from compensatory services (Glass & Smith, 1977).

In summary. Compensatory programs are primarily designed to assist poor and low achieving children. As minority children are disproportionately represented in these groups, they are also disproportionately represented in compensatory programs. Since most compensatory aid is administered by pulling children out of regular classes for special instruction, the impact is to resegregate. Children in pull out programs spend a significant amount of time in more racially isolated settings; a substantial proportion have all their classes with other CE students. The resegregative effect of compensatory services are difficult to avoid because of a lack of alternative models and resources for service delivery and because of the need to adhere to Federal regulations about targeting aid.

Special Education Programs

The provision of special education services is based in the right to an education for all American children, including the handicapped. Of an estimated

7 million handicapped children, 1 million receive no services, and only 40% of the children are receiving the services they need (Weintraub & Abeson, 1976). It has been assumed that because handicapped children have special needs, special materials, instructional methods, and specially trained teachers are needed. These special services have generally been provided by grouping students according to their handicapping condition. Assignment to a special education class is usually based on a combination of standardized test results, subjective evaluations of school personnel, and parental consent. Because minority children are likely to perform at a lower level on standardized tests than do white children and are likely, as a group, to be more negatively perceived, they tend to be overrepresented in EMR classrooms.

The history of special education is marked by numerous legal suits: (1) to establish the right to an education for handicapped children, most notably PARC v. Commonwealth of Pennsylvania (1971) and Mills v. Board of Education (District of Columbia) (1972), and (2) to establish nondiscriminatory practices for assignment to special education classes, Diana v. State Board of Education (California) (1970), Larry P. v. Riles (San Francisco) (1972, 1979), and PASE v. Hannon, et al. (Chicago) (1980).

Congress recognized the right to an education for handicapped children and their special educational needs in passing Public Law 93-380, the Rehabilitation Act of 1973 and the subsequent Educational Amendments of 1974, in which it was declared that ". . . (it is) the policy of the United States of America that every citizen is entitled to an education to meet his or her full potential without financial barriers." P.L. 93-380 and the subsequent Educational Amendments provided the basis for Public Law 94-142, the Education for all Handicapped Children Act of 1975. P.L. 94-142 provides funds to states and local school districts for the delivery of special education services to children with physical, cognitive, and emotional handicaps. Federal financial assistance for special education had been available under previous legislation, but

P.L. 94-142 added considerable procedural specificity to existing requirements; in addition, its provisions are mandatory regardless of the level of actual appropriations. The law and regulations establish a comprehensive process for identifying, assessing, and placing handicapped children, including the following elements:

(1) a free and appropriate public education for handicapped children,

(2) placement in special education only following a nondiscriminatory comprehensive assessment, and retention in special education only if subsequent reevaluations (at least once every three years) confirm the continued need for special education,

(3) due process for parents

(4) individual education program (IEP) designed to meet the child's needs,

(5) special education services to be provided in the least restrictive environment (LRE).

Funds are allocated by a formula based on the number of handicapped children enrolled and the average per pupil excess cost of special education services. Only a small proportion of the excess cost has thus far been financed by P.L. 94-142 appropriations.

Advocate groups for handicapped citizens, notably the Council for Exceptional Children and the Association for Retarded Citizens, were instrumental in designing the legislation and winning its passage by near-unanimous votes in both houses of Congress. The success of these efforts was made possible, however, by judicial decisions that had already mandated most of the provisions of P.L. 94-142, the PARC and Mills cases. The court decisions gave equal educational opportunity for the handicapped a Constitutional foundation; they also made state and local officials more receptive to federal legislation, since it would provide funds and set more uniform standards than would a continued series of lawsuits. No major educational organization went on record in opposition to the passage of the new law.

An additional impetus for P.L. 94-142 arose from the Diana and Larry P. cases in which the misclassification of minority children as retarded was challenged. Decisions in these two cases laid the foundation for the nondiscriminatory assessment provisions of the legislation. This requirement plus the least restrictive environment (LRE) doctrine are the most important components of the law regarding racial and ethnic segregation in special education. While the general standard of appropriateness in assessment and service delivery of course encompasses the entire range of handicapping conditions, the legislative history of P.L. 94-142 indicates that the issues affecting minority group children were not the major concern of the dominant advocate groups. Rather, their emphasis was on the inclusion in public education of children who had historically been barred from school, the more severely handicapped.

P.L. 94-142 provides funding for students diagnosed as having speech impairment, orthopedic and sensory handicap, severe emotional disturbance, specific learning disability (LD) and mental retardation(MR). The last category has traditionally been further differentiated into three educationally relevant divisions: educable (EMR), trainable (TMR) and-severe (SMR).

The more severe or more obvious handicapping conditions are fairly easily discernible. These include severe emotional disturbance, TMR, SMR and speech and physical handicaps. It is in the differentiations of the mildly handicapping conditions, EMR and LD, which rely heavily on judgments of school personnel that questions of resegregation arise.

Resegregation Through Special Education

The regular curriculum is organized in ways that lead to resegregation, but even more dramatic is the tendency for special education programs to become ghettos for minority children, particularly black children. The great disproportionality of black youngsters in special education classes, particularly the most stigmatizing educational EMR classes has been amply documented. The resegregative impact of this pattern is mitigated only by the comparatively small percentages of youngsters involved. Whereas most children will be affected by school policies related to ability grouping and tracking, nationally about 5.9% of white students, 5.8% of Hispanos and about 8.4% of black students are assigned to all categories of Special Education. The figures for EMR assignment are about 1% of whites, 1% of Hispanos and 3.5% of blacks. There are also substantial regional variations (Center for National Policy Review, 1980).

Student assignment. The disproportionality of minority students in EMR classes was first brought to public attention in the Diana case in 1970. In this class action suit, the plaintiffs used disproportionality (two times as many Hispanic youngsters in EMR classes than would be expected given Hispanic enrollment in school) to support their claim that the use of standardized intelligence tests, administered in English, resulted in misclassification of Hispanic children. Diana was quickly followed by a similar class action suit, Larry P., on behalf of black children. The Larry P. plaintiffs produced similar data for black enrollment in EMR classes in California and even more disproportionality in San Francisco, the origin of the case.

The disproportional representation of black children in EMR classes across the nation has been clearly demonstrated since the Office of Civil Rights began collecting data on special education in 1973. The Children's Defense Fund (1974) analyzed 1973 OCR data for 505 school districts in Alabama, Arkansas, Georgia, Mississippi, and South Carolina. They found that over 80% of the students in EMR classes were black, even though less than 40% of the total enrollment in these districts was black. Almost half (46%) of these 505 districts reported that 5% or more of their black students were in EMR classes, however only four districts reported that 5% or more of their white students were in EMR classes. In 190 of these districts (over 37%) the probability that a black student would be in an EMR class was five times as great as that for a white student; and in ten districts, the probability was ten times as great.

Analyses of data from specific school districts have tended to reinforce these general national patterns. The Columbus public schools' Report to the Federal District Court on the Status of Desegregation (March, 1980), included data on enrollment in special education classes by type for 1979 and new enrollments between October 1979 and January 1980. They found some disproportionality with the most dramatic difference at the high school level.

In the metropolitan Nashville-Davidson County public schools, psychological services received 2,287 referrals from classroom teachers in the 1977-78 school year, 76% at the elementary school level. Of these, 58% were white, 31% black and 11% unknown or other. Psychologists tested 72% of the elementary children referred, served 10% without assessment and left 18% unserved. While the referral rate reflects the 31.2% of the metro school population which was black, 58% of the children in EMR classes were black (Cook, 1980).

There is a good deal of evidence to suggest a dramatic decline during the past decade in the overrepresentation of Hispanic students in EMR classes. Early (1970s) data on Hispanic enrollment in EMR classes reflected the disproportionality presented in the Diana case. The U.S. Commission on Civil Rights (1974), in its six-volume study investigating barriers to equal educational opportunity for Mexican Americans in the public schools of the Southwest, reported that Hispanos were twice as likely to be placed in EMR classes in Texas and 2½ times as likely in California. These two states, which were the only ones to record ethnicity of EMR students, enrolled more than 80% of the total number of Mexican American students in the Southwest.

Carter (1970a) reported a relationship between the enrollment of Hispanos in EMR classes with their overall enrollment in the school systems. In comparing ten districts with low Hispanic enrollment, he found that the larger the Mexican American percentage within the school district, the more likely they were to be considered retarded. In the districts with an average Hispanic enrollment of 15%, 30% were in EMR classes. In districts which averaged 2.8% Hispanic, 3.6% were in EMR classes.

More recent reports lead to the conclusion that nationally the overrepresentation of Hispanic children in EMR classes may be declining. Carter and Segura (1979) reported California State Department of Education survey data which document that between 1969 and 1977 there has been a dramatic decrease in the disproportion of Hispanic students in EMR classes. Similar patterns were noted in the placement of Hispanos in EMR classes in Texas. It should be noted that this decline of Hispanic placement in EMR classes in the Southwest has not been accompanied by a similar decline in the disproportion of black students in EMR classes in these states.

Aspira (1979b) reorganized and reanalyzed the 1968-76 data from OCR, focusing attention on school districts having 3,000 or more pupils and at least a five percent Hispanic enrollment. Less than five percent of all districts in the nation met the combined criteria. As part of this study they focused on Hispanic enrollment in special education. They concluded that nationally the percent of Hispanic enrollment in EMR classes was lower than that of non-Hispanic enrollment. However, Hispanic participation in EMR classes was greater than that of non-Hispanics in desegregated East Coast schools and was consistently higher in Southwest schools. Thus, though there has been a decline in disproportion overall, Hispanos continue to be overrepresented in EMR classes in school districts having substantial Hispanic enrollment.

A recent analysis of OCR data verifies that black children continue to be disproportionately represented in EMR classes. Nationally they are about 3½ times as likely as white students to be placed in such classes; in the South, the figures are closer to 4½ to 1. This report also confirms the trend in the decline of Hispanic enrollment in EMR classes indicating that Hispanos are no longer overrepresented in EMR classes nationally (Center for National Policy Review, 1980).

The disproportionate representation of minorities in LD classes is not nearly so dramatic as for EMR classes. While the proportion of black enrollment in LD classes exceeded that of the school enrollment in Nashville this has not been the case nationally. The Columbus report (1980) indicated a slightly smaller percentage of minority students in LD classes than in the total school enrollment. The Center for National Policy Review (1980) found that black students were slightly less likely to be categorized as LD nationally and dramatically less so in the Northeast and Midwest. In the Northeast, the ratio of blacks to whites in LD programs was .67/1.00; in the Midwest, the figures were .75/1.00. In contrast, Hispanos tend to be slightly overrepresented in classes for LD nationally (Aspira, 1979b; Center for National Policy Review, 1980).

In summary. More blacks are assigned to special education than any other racial or ethnic group. Blacks tend to be greatly overrepresented in EMR classes and underrepresented in LD classes. Hispanic overrepresentation in EMR classes is declining, but they tend to be slightly overrepresented in LD classes. Since LD classification is generally conceived to be less stigmatizing than EMR to children so labeled, the disproportionate number of black students assigned to the more stigmatizing program raises some serious questions about the evaluation and assignment of black children in special education classes. The decline in the proportion of Hispanic children in EMR classes may reflect a change in assessment procedures which eliminates the obviously unfair technique of testing a Spanish-speaking child with an English IQ test. Their slight overrepresentation in LD classes may reflect ambiguity in the definition of LD, especially as it relates to the understanding of the impact of having Spanish as a first language in a predominantly English-speaking educational system. The movement of minority children out of special education does not necessarily reduce the overall resegregation of these children within the school; they may be moved out of EMR classes into a largely segregated low ability group class or into equally segregated bilingual education programs.

Program organization. Special education services, like ability grouping and compensatory education can be organized in ways that are more or less resegregative. P.L. 94-142 requires placement of handicapped children in the least restrictive environment (LRE), that is, handicapped children should be educated with their normal peers to the greatest extent possible. In practice, the options of placement generally available in schools are, from the least restrictive to the most restrictive: resource room service, part-time special class, full-time special class, and special day school. Resource room services are often limited in scope, for example, some school districts allow a maximum of one hour per day of resource help. Children classified as EMR are generally placed in full-time special classes. Children classified as LD may receive resource help or full-time placement, depending on the perceived severity of the learning disability.

Furthermore, Gallagher (1972) points out that ". . . in a number of large city school systems far less than ten percent of the children placed in special education classes are ever returned to regular education." Judge Peckham, in the Larry P. case, indicated that assignment of black children to EMR classes is especially harmful in that EMR classes are dead-end placements.

In the early years of implementation of P.L. 94-142, state education departments and local school districts were primarily concerned with the identification of eligible children and the establishment of IEP and due process procedures (Hargrove, Graham, Ward, Abernethy, Cunningham & Vaughn, 1981; Stearns, Green & David, 1980). Implementing the LRE provision has received less attention. The Office of Special Education has been criticized for lax enforcement of a number of P.L. 94-142 requirements, including the continued high placement rates of black children in EMR programs (Educational Advocates Coalition, 1980). There have been coordination problems between OSE and the Office of Civil Rights in the Department of Education, which monitors minority placement rates in special education under Title VI of the Civil Rights Act of 1964. Although OSE has a considerably broader mandate for monitoring and enforcement of P.L. 94-142 than does OCR, which primarily responds to individual complaint, OSE has been criticized as being slow to use the OCR data and to investigate disproportionate minority placement rates as long as the general procedures of P.L. 94-142 appear to have been followed (Education Advocates Coalition, 1980).

The Relationship of Special Education Programs to Desegregation

For a number of reasons, it is difficult to determine if special education assignments for black children have increased with desegregation. Are such assignments being used systematically to resegregate within desegregated schools? One problem is that data on special education by race was not systematically gathered nationally before 1973. In the South, where disproportionate assignment is greatest, desegregation preceded this period. In the past decade there has been increased attention given to special education programs and provision of additional resources for special education, and this has in many cases coincided with the process of desegregation. In school districts where an increase in special education placement occurred simultaneously with desegregation, it is difficult to determine the extent to which this is in response to desegregation or a response to an increased focus on special education assignment. This is especially true when there is not racial data preceding desegregation.

There is some evidence that special education assignment for black children may increase immediately after busing to integrate; that it may be a specific response to desegregation. For example, during the first year of court-ordered desegregation in the Omaha public schools in 1976 and 1977, teacher initiated referrals increased 50%. This was almost entirely accounted for by black children who had been bused to previously all white schools (Galusha, 1980; Watkins, 1980). Because referral is the first step in the process of special education placement, the year following implementation of a desegregation busing plan may be a high-risk time for consideration of black children to special education. Columbus, Ohio reported a slight increase in special education assignment in the two years following implementation (Columbus Public Schools, 1979, 1980, 1981).

In most of the nation, school districts under court-ordered school desegregation plans are somewhat less likely to have a high proportion of their black students in EMR programs than those under voluntary plans of desegregation. This suggests that districts under court order are more likely to be sensitive to issues of resegregation than those that are not specifically directed to be so under court order. In the South, which has the greatest percentage of students in schools under some form of desegregation plan, the difference in percentages is very small. This is the area of the country where the largest proportion of blacks are in EMR classes and the type of desegregation plan appears to have least effect (Center for National Policy Review, 1980).

When comparing schools along a continuum of segregation, a decreasing percentage of blacks and an increasing percentage of whites are identified as EMR when moving along the continuum from intensely white to intensely black schools (Center for National Policy Review, 1980).

Little is known about the effects of desegregation on assignment of Hispanic children to special education. The Aspira (1979b) study which addressed the question of Hispanic student assignment to special education as it related to the degree of segregation of the school district found distinct regional differences in this relationship. In the Southwest, Hispanic assignment to EMR classes was lowest in the least segregated districts. For the remaining areas the reverse was true; Hispanic participation in EMR classes was lowest in highly segregated districts. In contrast, they found no relationship between segregation and Hispanic enrollment in LD classes except in the Midwest where Hispanic participation in LD classes decreased as the level of segregation increased.

The Persistance of Special Education as a Programmatic Regularity

The resegregation of minority children via full-time placement of these children in special education classes (especially EMR) calls to question the effectiveness of this organizational practice. Researchers studying the effectiveness of differing organizations of service delivery in special education have generally compared the effectiveness of special classes to mainstreaming of EMR children. Several excellent reviews are available (cf., Abramson, 1980; Corman & Gottlieb, 1978; Semmel, Gottlieb & Robinson, 1979) thus only the basic conclusion of these reviewers is shared here: researchers have failed to show a difference in achievement of students placed in full-time EMR classes and those who have been mainstreamed.

If special classes are not effective, then why do schools persist in this organization? The range of diversity which teachers encounter with mainstreamed EMR students is very great. There are very real, and educationally important, differences between the child with an IQ of 60 (EMR range) and the child with an IQ of 140 (gifted range). The regular teacher may not have the knowledge or technical facilities which would support an appropriate educational program for these children. Furthermore, special classes are the administratively easiest means by which to provide services to groups of children which had not been routinely served by the schools.

For many years, the schools had excluded handicapped children from their programs. Inclusion of these children is now mandated. Even if states or school districts should elect not to participate in the P.L. 94-142 program and subsequent funding they must abide by the regulations promulgated by the Office of Civil Rights under Section 504 of the Rehabilitation Act of 1973, which contains many of the same provisions.

Bilingual Education Programs

> Very few activities in public affairs are more confusing and politically charged than are bilingual education and school desegregation. Both involve the legislative, executive, and judicial branches of state and national government. Both are seen by the public as having major social, as well as educational implications. Neither are well understood by practitioners nor the public in general. Much heat but little light is being generated. (Carter, 1979)

Bilingual education programs are based on the value of equal benefit from educational opportunities. Given equal access to English-based instruction, the limited-English proficient (LEP) student does not have the same opportunity for learning as do English proficient students. The magnitude of the need for bilingual education is difficult to gauge in that there are no accurate counts of the number of LEP children (Thernstrom, 1980) and that there are varying degrees of language proficiency in both languages of LEP children (Alexander & Nana, 1977). The majority of students in need of bilingual education are Hispanic, though a significant proportion of Hispanic children who need special language services are not enrolled in such programs. "Indeed, among the 12 states where the need for bilingual programs is the greatest, only one-third to two-thirds of the Hispanic children are being served" (Fernandez & Guskin, 1981). Though bilingual programs are not reaching all of those children needing services, those children who do participate tend to find bilingual programs segregative experiences. Bilingual-bicultural programs were mandated with the hope of remedying English language deficiencies that lead to low achievement and high drop-out rates for LEP youngsters which also have a resegregative effect.

Though local school districts have had bilingual education programs since the middle of the 19th century (Thernstrom, 1980), it is its recent history which has established bilingual education as a programmatic regularity in the schools. The need for bilingual education has resulted in mandates from the judicial, legislative, and executive branches of government.

The judicial mandates for bilingual education are very much intertwined with Hispanic desegregation efforts. The frequently cited basis for segregation of Hispanos was their English language deficiencies and the special needs those deficiencies created. Since 1970, courts have included bilingual programs as components in desegregation plans (Cisneros v. Corpus Christi, 1970; U.S. v. Texas, San Felipe Del Rio, 1972; Milliken v. Bradley, 1974; Arvizu v. Waco Independent School District, 1974) and more recently mandated bilingual programs but prohibited the maintenance of the predominately Hispanic schools in which they would be implemented (Keyes v. School District No. 1, Denver, 1975; Otero v. Mesa County Valley School District No. 51, 1975).

The judicial landmark in bilingual education was the unanimous decision of the Supreme Court in Lau v. Nichols (1974). The Court found that the San

Francisco Unified School District had violated the Civil Rights Act of 1964 by denying the district's Chinese-speaking students a "meaningful opportunity to participate in the educational programs." They maintained that there is not equality of treatment merely by providing students with the same facilities, textbooks, teachers and curriculum; students who do not understand English are effectively foreclosed from any meaningful education. The mandate was for special programs to assist students with English-language deficiencies to benefit from educational programs. The Lau decision was cited as precedent for subsequent court decisions regarding bilingual education for Hispanic students (Serna v. Portales Municipal Schools, New Mexico, 1974; Aspira of N.Y. Inc. v. Board of Education of N.Y., 1974). In the most recent case involving bilingual education, the court ruled that having an ineffective program is the same as having no program, and therefore is a violation of Lau (Rios v. Read, 1977).

Congress first addressed the special needs of LEP children in the passage of Title VII of the Elementary and Secondary Education Act (ESEA) in 1968. Though titled the "Bilingual Education Act" no mention of bilingual education was made in the statute, rather "new and imaginative . . . school programs designed to meet these special education needs" (Section 702) were eligible for funding. The eligible participants were limited to non-English speaking students (LES/NES) having a home language other than English, a low family income, and a record of low achievement. Title VII was subsequently renewed and revised in 1974 and 1978. The revisions of the act in these two years expanded the act to: (1) include a broader range of participants, by focusing on English proficiency rather than speech alone, by dropping the low income requirement, and by allowing inclusion of up to 40% enrollment of English-proficient students; and (2) become more specific in the types of acceptable programs, by requiring "bilingual/bicultural education programs" rather than the "new and imaginative" programs originally mandated. Additionally, the ESAA contained a separate provision for bilingual education.

Congress also passed the Equal Opportunity Act (1974) which stated:

> No State shall deny equal educational opportunity to an individual on account of his or her race, color, sex, or national origin, by the failure by an educational agency to take appropriate action to overcome language barriers that impeded equal participation by its students in its instructional programs (Section 1703.f).

Proposed rules and regulations for the Equal Opportunity Act were not published until the last months of President Carter's administration in the fall of 1980. These highly controversial guidelines were opposed by opponents and proponents of bilingual education for differing reasons, and were withdrawn as the first official action of President Reagan's new Secretary of Education Terrell Bell (Department of Education, 1980; Bell . . ., 1981).

Concurrently, the Office of Civil Rights and the Office of Education were (1) developing guidelines for school districts delivering services to LEP students, and (2) engaging in subsequent monitoring activities. The first bilingual mandate from the executive branch was in the form of a memorandum, applying Title VI of the Civil Rights Act of 1964 and providing directives from the Department of Health, Education, and Welfare to school districts having substantial LEP student populations. This document, which became known as the "May 25th Memorandum," required schools to remediate "language deficiencies in order to open their instructional programs to limited-English-speaking students" (Pattinger, 1970). The executive mandate was further clarified by the development of guidelines prepared by an OCR task force, adopted by OCR and USOE, and issued in the summer of 1975 (Epstein, 1977). These guidelines, known as the "Lau Remedies," required school districts having 20 or more children from one language group to provide bilingual-bicultural education programs for children who solely or primarily speak that native language. Since OCR began applying the Lau Remedies in 1975, it has negotiated nearly 500 local agreements based on those guidelines (Stanfield, 1980). Critics of the Lau Remedies contend that these guidelines go beyond the judicial mandate of Lau, in that: (1) Lau addressed the needs of students having linguistic deficiencies in English whereas the Remedies defined eligible students by their primary or home language, and (2) Lau required "something special" in meeting the needs of LES/NES students whereas the Remedies specified bilingual-bicultural education.

In addition to federal mandates, local school districts must also respond to their state mandates; 22 states have enacted bilingual education legislation (Brisk, 1978).

If there is one thing that stands out from this review, it is that "(t)he two mandates (bilingual education and desegregation) are rife with imprecise definitions, political interpretations, government jargon and educanto, and advocacy for varying interpretations" (Carter, 1979).

Models of bilingual education. Programs to assist LEP students are designed in a variety of ways with different implications for ethnic isolation. Approaches range along a continuum from English-as-a-Second Language (ESL) classes to fully developed bilingual-bicultural-bicognitive educational programs. The basis of ESL is that of teaching English as a foreign language (U.S. Commission on Civil Rights, 1972), with the rationale that techniques other than immersion are necessary to assist the LEP child in gaining the English language proficiency necessary to have a successful educational experience.

Bilingual education encompasses a variety of programs including bilingual, bilingual-bicultural, or bilingual-bicultural-bicognitive education programs. Title VII as amended defines bilingual education as "instruction in two languages and the use of those two languages as mediums of instruction for any part or all of the school curriculum." While recognizing the need to become proficient in English, bilingual education is also based on the rationale that students learn best when taught in their native language and that LEP students should have the opportunity to keep pace with their English-speaking peers who are learning other subjects.

When the study of the history and culture associated with a students' mother tongue is included in a bilingual program, bilingual-bicultural education results. A few proponents of comprehensive bilingual programs argue that LEP students have developed different cognitive styles as a result of their socialization experiences and thus should be taught using teaching styles and strategies different from their English proficient peers. This is termed bilingual-bicultural-bicognitive education, and has obvious implications for segregation (Lopez, 1978; Ramirez, 1973; Ramirez & Castaneda, 1974).

The resegregative impact of a bilingual program will depend not only on its instructional focus but also on the goals for the program. Policy makers have generally mandated transitional programs designed to prepare LEP students to learn effectively in the regular school program. Most proponents of bilingual education and Hispanic communities espouse a desire for maintenance programs to develop equal competence in both languages as well as fostering a bicultural identity.

The resegregative impact of a maintenance orientation might be softened if English speaking students were active participants and developed proficiency in the second language; this would create a two-way rather than one-way program. In such programs, children who were initially monolingual in English would have the advantage of bilingual competency. The programs would be viewed as "alternative" rather than "remedial." While bilingual programs were initiated to meet the needs of LEP students, nearly every bilingual statute provides for the voluntary enrollment of non-national-origin-minority students (Cohen, 1969).

Most programs are designed to be transitional. Theoretically, transitional programs may be one-way or two-way; however, in practice, a transitional program is usually regarded as "remedial" and is not attractive to non-Hispanos.

Resegregation Through Bilingual Education

At this time it is impossible to test the hypothesis that bilingual education results in resegregation due to an overwhelming lack of data. Neither the Office of Bilingual Education nor the National Clearinghouse on Bilingual Education could supply reports regarding the nature of students in bilingual education or the organizational patterns used by schools in delivering bilingual education services. Thus, the conclusion that bilingual education is resegregative is based on limited data and consideration of the definition of bilingual education programs.

Student assignment. While a school may offer bilingual programs for several linguistic groups, these groups are separated for obvious instructional purposes. For example, bilingual programs in Vietnamese are separate from bilingual programs in Spanish. The majority of students enrolled in bilingual programs are Hispanic; estimates range from 70 to 84 percent (Aspira, 1979b; Department of Education, 1980; Epstein, 1977; Fernandez & Guskin, 1981; Stanfield, 1980). Federal rules and regulations for Title VII bilingual programs allow a maximum of 40% enrollment of English-speaking students; however, they fund only LEP students. The California state bilingual education law, the Chacon Act, requires that no more than 2/3 of the students in a bilingual education program be LES (limited-English-speaking). This act appears to endorse two-way bilingual education by involving non-LEP students; however, Carter (1979) points out that 90% of the children in California's Spanish-English programs are Hispanos, concluding that the vast majority of English-speakers are Mexican Americans. He further comments:

> No data are available to discern to what extent English-speaking children are enrolled in Title VII classes. It is suspected that the majority of those English-speaking children enrolled are English-speaking Hispanos rather than Anglos or blacks.

Epstein (1977) noted that is has been common practice to assign students to bilingual education programs on the basis of surnames rather than language need. Such an assignment practice would, by definition, constitute discrimination and segregation.

The only wide-scale research on bilingual education was conducted by the American Institute for Research (1977-78), the "AIR study," under contract with the U.S. Office of Education. According to their analysis, which combined ESL and bilingual education classes, 75% of the children in Title VII classes were Hispanic and only 16% of these were judged to be monolingual-Spanish. The researchers asked teachers to rate the children in bilingual classes according to their English speaking abilities; their results are presented in Table 12.

Table 12
Percent of Children in Title VII Classes Due to
LES-Ability (As Judged by Their Teachers)

Grade	Percent
2	35
3	30
4	29
5	19
6	27

On the average, less than 1/3 of the children, grades 2-6, in Title VII Spanish-English classes were LES. This led AIR researchers to conclude that Title VII classes were not primarily vehicles to teach non-English-speaking students substantive subject matter while they acquired English, rather they were separate classrooms for Hispanic children. It should be noted that at that time of the AIR study, the target population for Title VII bilingual programs was limited and non-English-speaking (LES/NES) students whereas the current target population is LEP students, encompassing such English skills as reading and writing as well as speaking abilities. The need for bilingual education for LEP students is not denied. However, the degree to which Hispanic students are assigned to bilingual education programs without regard to linguistic needs causes one to question bilingual education as a resegregative practice.

Program organization. The degree to which bilingual programs are resegregative may depend on how they are organized and administered. Thernstrom (1980), reflecting on the AIR study, commented: "One reason the programs served such a high percentage of English-competent students was because transfers out of Title VII classrooms were rare." Indeed, 86% of the students remained in bilingual programs although judged to be competent in English. Only 9% were transferred to English-speaking classes while receiving some continued support for Spanish maintenance; and only another 5% were totally transferred to English-speaking classes. Thus, in practice, many programs espousing transition goals do not implement transition, in turn creating Hispanic tracks within the school.

The potential for resegregation through bilingual education is very much a function of the model and/or goals of the program as they interact with time spent in the program. Title VII rules and regulations mandate that, at the very least, students in bilingual programs join their English-speaking peers for nonacademic activities and courses which require little or no English such as music, art, and physical education. Time spent in special language classes may range from an hour a few times a week to full-day bilingual programs.

The preferences of schools for time allotments has been neither systematically recorded nor analyzed. No data are available regarding the amount of time students are in ESL or bilingual classes. Thus, one must examine the organizational structure of bilingual programs from a theoretical perspective in order to demonstrate the potential for resegregation.

ESL classes are, by definition, limited to LEP students; thus enrollment is likely to be 100% Hispanic. However, time spent in ESL is generally less than that spent in bilingual education programs. Some schools offer an ESL "entry program," which is an intensive full-time ESL course followed by transfer to English-speaking classes as soon as possible. In such instances, content areas are not taught until the child becomes English-proficient. Other schools offer ESL classes concurrently with participation in English-speaking classes. Participation in such programs may vary from a few hours per week to as much as half the school day. Approximately half of the programs in the Aspira (1979b) study were ESL only.

The other models of bilingual education may have transition or maintenance goals and may be one-way or two-way. Participation in such bilingual programs may be for any part or all of the school day. Theoretically, one would expect transition programs to segregate students for a lesser period of the students' educational career than would maintenance programs. However, as noted, transition may not be implemented.

Carter and Segura (1979) indicated that nine out of ten bilingual education projects in the Southwest are transitional, and that 90% of the children served are Mexican-American. Thus, transitional programs tend to be resegregative, but theoretically only until the child becomes English-proficient. In an attempt to promote transition, the New Jersey Bilingual Education Act limits student participation to three years.

One-way maintenance programs for Hispanics only are equivalent to the establishment of a dual educational system. Two-way programs are, by definition, integrated. Two-way bilingual programs are more likely to be viewed as "alternative education programs," rather than having the remedial nature inherently attributed to transitional bilingual programs, thus drawing participation of non-Hispanos. However, few two-way maintenance programs exist.

The degree to which any of these programs, regardless of model, goals, or participants, is resegregative is very much a function of time spent within the program. Thus, resegregation via bilingual education is a function of student assignment practices and program organization. In summary,

> Existing bilingual programs do not operate in a truly bilingual setting. The typical program enrolls only about one-tenth Anglos and small numbers of blacks. Hispanic children . . . tend to be channeled into the programs even if they could function in English-language classes and kept in them when they could be in the normal curriculum. About two-thirds of the children in the program are not assigned because of limited English-speaking ability, and only one program in 20 transfers a child to an all-English program when he or she could handle it. (Orfield, 1977, p. 87)

The Relationship of Bilingual Education to Desegregation

The relationship of bilingual education and desegregation is best represented by an analogy to the "double-edged sword," i.e., while bilingual education may be a resegregative threat to desegregation, desegregation may be a threat to the integrity of bilingual education programs.

In the Aspira (1979b) nationwide study of schools having sizeable Hispanic enrollment, the researchers found that students who may need bilingual education or ESL were more likely to participate in these programs in highly segregated school systems. Of the students possibly needing special language instruction: 47% in low segregated (desegregated?) districts received bilingual education or ESL as compared to 57% in relatively high segregated systems. They concluded, "(i)t appears that segregation highlights the need for special language programs, serves as an incentive for implementing these programs, and facilitates provision of the programs."

"In several cases since 1974, the very existence of ongoing bilingual bicultural programs has been seriously threatened by the imminence of a school desegregation decree" (Cohen, 1975). This threat is usually manifested in the proposed application of strict ratios in the student assignment plan

(Fernandez & Guskin, 1981). Thus, Hispanic involvement in recent desegregation cases has been at the remedy stage in attempts to preserve the integrity of bilingual programs (Fernandez & Guskin, 1981); such was the case in Milwaukee (see Baez, Fernandez & Guskin, 1980) and Boston (see Aspira, 1980 and Brisk, 1975).

In an attempt to specify the effects of desegregation on bilingual education, Aspira, Inc. (1979a) conducted an ethnographic study in two school districts (unnamed) on the East and West coasts. Both of these districts were tri-ethnic communities with a total minority enrollment under 50% (15-25% Hispanic, less than 30% black) and a total school enrollment between 20,000 and 150,000. Both districts were in their second year of court-ordered desegregation. The researchers from Aspira spent four months of field work concentrated on selected elementary schools within each district. Their ethnographic techniques included observations and interviews of school personnel and community members. Though both districts were encountering difficulties with the simultaneous implementation of bilingual education and desegregation, their difficulties were quite different. In "Eastville"

> (t)here are problems associated with "mainstreaming" or returning a child to the regular classroom (from bilingual classrooms). As soon as a child demonstrates (English) proficiency he or she is mainstreamed and encounters rapid and grammatically complex English. In addition, the mainstreamed child loses the warmth and congeniality of the ESL or bilingual class. The abrupt transition is not demonstrating good results (p. 92).

Though school administrators in "Westville" reported that desegregation had had "no effect" on the bilingual education program, the Aspira researchers found that desegregation had resulted in the following: (1) dispersion and reassignment of bilingual students and teachers; (2) some bilingual teaching teams had been broken up and forced to reorganize; (3) bilingual teachers and education were not accepted in new schools; and (4) K-6 neighborhood school boundaries had been redrawn, resulting in so much dispersal that bilingual education was on an individual "pull out" basis for all K-6 schools, whereas organized group programs had existed prior to implementation of desegregation. In general, they concluded that "court ordered desegregation plans at times curtailed specially targeted minority programs (e.g., bilingual education, early childhood education) . . . (because) they depend on a critical mass of students in schools to meet federal guidelines for funding" (p. 10). Furthermore, school desegregation had not enhanced the understanding of the Hispanic community by white administrators or teachers and that Hispanic students were less likely to come into contact with a supportive learning environment given desegregation. Finally, they commented that there were divergent goals for bilingual education; whites wanted transition programs and Hispanos wanted maintenance programs. Fernandez and Guskin (1978) summarized the situation: "Dispersing students . . . and not providing them with similar services in desegregated schools will place an undue burden on these children, is educationally unsound and indicates that the desegregation plan is not appropriate for the multi-ethnic/mutlilingual population in the district" (p. 62).

Carter (1979) suggested that desegregation need not become a threat to bilingual education. He noted the increasingly popular movement from desegregation addressing the racial balance of schools toward ethnic/racial isolation, an approach that would allow a critical mass of LEP students to be assigned to particular schools rather than evenly dispersed throughout a district. Furthermore he argues with regard to bilingual education and desegregation that "only lack of creativity and lack of commitment deter implementation of bilingual programs in racially balanced schools" (Carter, 1979).

Bilingual Education as a Programmatic Regularity

Agreement that "something" needs to be done to assist the LEP students in English-speaking schools leads one to question the efficacy of bilingual education. "One-half billion dollars were spent on bilingual education in the ten years from 1968-1978; less than one-half of one percent was for research, with the result that we have very little more of a research base for bilingual education than we did over ten years ago" (Troike, 1978). "Not only is there a limited amount of educational research on bilingual education, but research findings on the accomplishment of bilingual education are almost nonexistent. The few studies that are available lack adequate depth, scope, time and methodology to provide a valid measurement of the outcomes of bilingual education" (Cardenas, 1977).

The most frequently cited study of the effectiveness of bilingual education was conducted by the American Institute for Research (1977-78) entitled "Evaluation of the impact of ESEA Title VII Spanish/English Bilingual Education Programs," better known as the AIR study. The AIR report consists of four large volumes; for summaries of the AIR study, see Cardenas (1977), Carter and Segura (1979), Epstein (1977), and Thernstrom (1980). In brief, these researchers contrasted the performance of two groups of students: those enrolled in Title VII bilingual programs and "comparable" students not enrolled in such programs. The students were pretested in the fall of 1975 and posttested in the spring of 1976. The AIR researchers concluded: (1) non-Title VII students did better than Title VII students in English language arts (both groups generally either maintained or improved their percentile ranks--both groups at about the bottom 20% of the nation); (2) Title VII students did better than non-Title VII students in math (both groups either maintained or improved their percentile rank--both at about the bottom 30% of the nation); Title VII students (including

Anglos) showed an increase from pretest to posttest in Spanish reading (non-Title VII students were not tested); and (4) there was no difference in school attitude associated with participation in bilingual education.

The AIR study has not gone without criticism, the most specific of which was conducted by the Intercultural Development Research Association (IDRA) and summarized by Cardenas (1977). Of their long list of criticisms, four are considered to be most important to the integrity of the AIR study. The AIR researchers did not distinguish among the varied program characteristics, such as model (ESL or bilingual), goals (maintenance or transitional), instructional time, content, and methodologies. Though the comparison groups may have been comparable on ethnicity and SES, they had varying degrees of English proficiency (75% of the Title VII students classified by their teachers as either English-dominant or bilingual English-dominant as compared to 96% of non-Title VII students); yet the researchers did not take English-proficiency into account as a variable in their research design. Theoretically the interim between pre- and posttests was a school year, yet in reality, in almost 50% of the schools, the time from pre- to posttest was five months or less. Finally, about one-third of the non-Title VII teachers and aides were involved in a bilingual program. "This raises the possibility that the comparable group had 'bilingual treatments,' thus invalidating them as a comparison." Troike (1978) admits that the AIR study does have its weaknesses, but suggests that it not be dismissed, rather it should be viewed as a challenge to improve bilingual-bicultural education.

The effectiveness of bilingual education fared better in reviews by Paulston, Belkin, Graham and Williams (1977) and Troike (1978). Paulston et al. (1977) concluded: (1) in overall English language arts, the bilingually-instructed groups scored as well as, or higher than, the groups receiving English-only instruction; (2) furthermore, they scored higher in Spanish language arts; (3) bilingually-instructed students did as well as, or better than, control groups in math achievement; and (4) after two-to-three years of bilingual instruction, students' bicultural attitudes were more positive than earlier and bilingually-taught children showed self-concepts as positive as, and, more often, more positive than, English-instructed students, stay in school longer, and learn English better than their English-instructed peers.

Troike (1978) criticized program evaluation reports submitted by Title VII programs as "worthless" as a research base in that they do not control for SES or intial language proficiency of the students, often lack baseline data for the control group, there are significant differences in teacher qualifications for control and experimental groups, and they provide insufficient data/or statistics.

Aspira (1980) criticized the state of research on the effectiveness of bilingual education programs, citing many of the same problems as Troike. They added, however, that "bilingual education is expected to do (or re-do) in one or two years what America's educational system has not accomplished in many of its monolingual English schools, without having to overcome language barriers (e.g., fifth grade Spanish monolinguals expected to attain fifth grade level English!)" (p. 84).

Orfield (1977) concluded, "Reading the existing research on bilingualism makes one point very clear--we do not know enough to make any confident global prescriptions . . . (p)robably we eventually will discover that there is no single best answer and that bilingualism works well only for certain purposes in certain settings" (p. 86).

The growing numbers of Hispanic LEP students enrolled in the schools almost assures that bilingual education will continue to be a programmatic regularity.

Currently LEP students are underserved. If the language needs of these students are being recognized, what then accounts for the fairly low level of services to these students? One possible reason is the shortage of qualified bilingual teachers--a fact on which almost all authors would agree, though "nobody knows how severe the teacher . . . shortages are" (Epstein, 1977, p. 12). Furthermore, the nature of the qualifications of many bilingual teachers have been brought to question. Cardenas (1977) reported that the "IDRA's secondary analysis of the AIR data shows that only 25% of teachers participating in the study reported having a bilingual teaching credential." Waggoner (1979) found that (1) teachers using a non-English language appear to have been assigned on the basis of language skills alone, (2) fewer than half had had even one course in bilingual education, and (3) only 14% had preparation in (a) teaching the language arts of a non-English language, (b) teaching other subject areas through it, (c) studies related to cultural background, and/or (d) teaching ESL.

There have been varying reports regarding the bilingual teachers' Spanish proficiency. Carter and Segura (1979) reported that approximately two-thirds of the teachers and almost all of the aides indicated that they spoke both English and Spanish in their homes. Waggoner (1979) found that 42% of the bilingual teachers were native speakers of that language. In contrast, Cardenas (1977) notes that almost half of the Title VII teachers in the AIR study admitted to not being proficient in Spanish; that 92% of the "bilingual" staff in one major city were monolingual English; and in another community, teachers were certified as bilingual with a minimum proficiency of 750 words in Spanish. Epstein (1977) described a study of the Spanish competency of bilingual teachers and aides in New Mexico, reporting that "only 13 of 136 could read and write Spanish at the third grade level" as measured on Mexican tests of standard third grade curriculum. The Spanish proficiency of the teacher is very important in that Merino, Politzer and Ramirez (1979) demonstrated that teachers' and aides' scores on Spanish proficiency tests were significantly related to pupil gains in English reading. Furthermore, only the teachers' proficiency in Spanish predicted pupil gains in Spanish reading.

In addition to their linguistic abilities and preparation for bilingual instruction, bilingual teachers must have an understanding of the importance and nature of biculturalism. "The great majority fail to recognize the overwhelming influence of culture on personality and behavior, have extremely limited knowledge of or contact with (Hispanos); and do not grasp the role and function of the American school in general society or recognize its influence on the ethnically different child" (Carter, 1970b).

Since 1974, approximately $25 million has been allocated annually by the federal government for training of bilingual teachers/aides (Epstein, 1977); however, when Walsh (1976) conducted a national survey of teacher training institutions which offer teacher preparation programs in bilingual education, only 18 were identified. Carter (1970b) stressed the need for teacher training institutions to meet the needs of their communities. He offered the example of the University of Texas at El Paso which graduates 450 teachers a year, about 75% of which stay in the general geographic area (an area of over 50% Mexican Americans)--yet there is no required coursework pertinent to the question of the education of Chicanos.

In summary: Bilingual education is a programmatic regularity of the schools designed to meet the needs of LEP students. The degree to which bilingual education is effective has been questioned, however, the authors of two recent literature reviews conclude that bilingual education has resulted in enhanced achievement and self-concept for the Hispanic youngster. The growing number of LEP Hispanic students coupled with a shortage of qualified bilingual teachers tends to exacerbate the problem of delivering adequate services to LEP students.

Reasons Resegregation Occurs

Desegregated schools resegregate in academic programs when they organize instruction around structures which separate students into homogeneous groups. In the first section of this chapter we have reviewed four major programmatic regularities which are resegregative in practice: ability grouping and tracking, compensatory education, special education, and bilingual education. In order to understand why resegregation occurs, it is necessary to take a closer look at student assignment practices and program organization. This section will discuss the relationship of race and ethnicity to the processes of pupil assignment, will examine resegregative organizational patterns and note the special problems created by the multiplication of categorical programs.

Student assignment to any of these programs generally involves a complex process of objective and subjective evaluations which include standardized testing, professional judgments about educational performance and behavior and, in some cases, student and parent choice.

The Effects of Standardized Testing on Resegregation

Ability and achievement testing are the major tools for assigning students to homogeneous groups. Findley and Bryan (1971) reported that 82% of districts polled used test scores for placement, many of them as the sole means of determination. Tests have been used for this purpose because they provide what appears to be an objective, simple and cheaply administered way to assess students and compare them to one another.

While group achievement tests are used for ability grouping, group IQ tests were banned for this purpose by the Hobson v. Hansen (1969) decision. Group achievement, aptitude, and interest tests are used for vocational and educational counseling and tracking. Individual intelligence, achievement, and personality tests are used in the assessment of suspected handicapped children and other children having academic or behavioral difficulties in school.

The association of test scores with race, class and ethnicity of students and the subsequent resegregation that results from sorting students into groups based on these scores has raised questions about test procedures and charges of test bias. Critics argue that the tests measure performance on tasks based on experiences and values that are less likely to be part of the minority child's history; the disjunction between exposure and tested competency will be most dramatic for the children whose families speak another language in the home. If test scores are viewed as representations of the inherent ability of children, and ability groups and tracks are rigidly built on that assumption, then the initial score gaps among racial and ethnic groups will be maintained.

There have been numerous discussions and definitions of test bias in the literature (Anastasi, 1976; Cleary, Humphreys, Kendrick & Wesman, 1975; Flaugher, 1978; Hunter & Schmidt, 1976; McNemar, 1975). Three major categories of test bias, content bias, mean bias, and predictive bias, have received the most attention.

Content bias. Content bias refers to the degree to which specific items on the test are culturally biased. Charges of content bias have been frequent, but attempts to eliminate content bias have generally not improved scores of minority students.

Analysis of content bias of tests have ranged from subjective opinions of reviewers to complex statistical item analysis. The subjective review procedure is a superficial examination of the item to determine if it looks biased. Some test developers have used panels of experts to review test items, eliminating those which appear biased, attempting to control for content bias. However, eliminating 13 items perceived to be biased from a widely used 82 item elementary reading test "did not improve the performance of schools with high minority populations relative to their performance on the original 'biased' version" (Flaugher, 1978). Frequently, subjective judgments of item bias are not substantiated empirically. For example, the following item from the WISC-R Comprehensive subtest: "What is the thing to do if a boy (girl) much smaller than yourself starts to fight with you?" has been frequently criticized as biased against inner-city black children. Statistical analysis of responses, however, would suggest that this item may be relatively easier for blacks than whites (Jensen, 1976).

Cotter and Berk (1981) examined item bias in the WISC-R using black, white, and Hispanic educators to select items they felt were biased against their groups. Five of six black educators felt that items were not biased; Hispanic reviewers selected eight items they felt were biased against Hispanos. In their second study they performed an item analysis and found that when results for black and white students were compared that 7 of 44 items (11%) were biased against blacks and 6 of 64 (9%) were identified as biased against whites. A similar pattern held with 6% and 8% biased against Hispanos and whites respectively.

In comparing the results of the judgmental and statistical review, it should be noted that those items thought to be biased were not statistically biased and that judges disagreed that the items that proved to be statistically biased were biased (Cotter & Berk, 1981). "Subjective judgments of item bias are not necessarily accurate, and revision of current tests either in the direction of greater or lesser cultural loading might have the effects of simultaneously increasing or maintaining group differences and reducing validity" (Reschley, 1979).

The issue of content bias has been raised in the courts. The plaintiffs in the PASE case (Parents in Action on Special Education v. Hannon, et al., 1980) argued that the individual intelligence tests used in identifying black children for EMR placement were culturally biased. Arguments and testimony focused on the relevance of the test items to the black culture. Judge Grady concluded that the experts were working from preconceived notions and chose not to base his decision on their conflicting testimonies. Rather, he conducted his own review of the tests used in assessment (Stanford Binet and WISC-R), examining the face validity of each item. He concluded that the tests are not biased and found in favor of the defendants. This case is currently under appeal.

Mean bias. There are literally thousands of articles which address the issue of mean differences in test scores among racial groups. These studies document lower scores by blacks on a variety of tests including the IQ tests frequently used for school placement (Joseph, 1977). "Several studies of testing made during the past half century have demonstrated that the mean score of blacks is one standard deviation (i.e., 15 points) below that of whites, especially on tests that purport to measure levels of intellectual function" (Samuda, 1975). Shuey (1966) reviewed more than 500 studies of black intelligence covering a period of 50 years and using 81 different measures of intelligence that confirmed these differences. When the racial groups are roughly matched on the usual SES factors, the mean IQ difference is diminished to about 10 points (Shuey, 1966). Though the majority of studies of racial and cultural differences on test performance has focused on IQ tests, similar differences emerge on achievement tests.

Whether the finding of a difference in mean test scores between groups is evidence of test bias is a matter of debate. Proponents of testing argue that mean differences do not equal bias, that these differences are real differences on the "trait" measured by the test.

> Differences in the experiential backgrounds of groups or individuals are inevitably manifested in test performance. Every psychological test measures a behavior sample. Insofar as culture affects behavior, its influence will and should be detected by tests. If we rule out all . . cultural differentials from a test, we may thereby lower its validity as a measure of the behavior domain it was designed to assess. In that case the test would fail to provide the kind of information needed to correct the very conditions that impaired performance (Anastasi, 1976, p. 58).

Opponents of testing argue that mean bias is related to construct validity, and that the construct of the tests is at the heart of the issue. For example, if it is assumed that the construct of intelligence is normally distributed regardless of the color of skin, yet the intelligence tests result in different means for different races, then the test is biased and lacks construct validity. (It should be noted that when differences in mean scores of males and females--females had the higher scores--occurred at the beginning of the testing movement, test authors altered the tests until the resulting means were the same, and they continue to be the same. The argument at that time was the construct of intelligence was assumed to be normally distributed in males and females.)

Plaintiffs in Diana v. State Board of Education, (1970) and Larry P. v. Riles, (1972, 1979) argued that the intelligence tests used for identifying Hispanic and black children, respectively, were culturally biased on the basis of construct validity. In Diana, it was argued that the construct of intelligence was not being measured when Spanish-dominant children were tested by English-language tests, i.e., the construct being measured was not "intelligence" but facility with the English language. The Larry P. arguments were much more complex though the focus remained on the construct validity of the test, that is, did the commonly used tests of intelligence (Stanford-Binet and WISC-R) really measure the intelligence of black children? Testimonies were given by the leading figures on both sides of the testing issue. In short, Judge Peckham concluded that the construct measured by IQ tests did not reflect intelligence of black children, thus banned their use for identifying black children for EMR placement. The state of California broadened this decision and has prohibited the use of IQ tests for identification of black children for any special education placement. It should be noted that the Larry P. case, like the PASE case in which the opposite decision was rendered, has been appealed. Thus, it appears that the debate of testing bias, a debate that seems to elude consensus among professionals, will culminate in a Supreme Court decision yet to come.

Those who support the validity of tests, contending that mean bias is not real bias, for educational assessment point to their predictive validity for minorities as well as majority students. That is, the tests are said to predict future educational achievement moderately well regardless of class or race (Jensen, 1973).

Predictive bias. IQ tests have been found to be moderately good predictors of achievement in school for most groups of children. Thorndike and Hagen (1977) reported a .50 to .60 correlation overall, with a .70 correlation with achievement in elementary school. A similar pattern has been noted for minority children (Hartlage & Steele, 1977) and LD and EMR children (Raskin, Bloom, Klee & Reese, 1978). There is, however, some laboratory research using learning tasks in a controlled experiment that suggests predictive validity is weakest with those groups whose previous experience might be expected to deviate from the middle class norm.

> . . . (L)ow IQ (60-85) lower class children are, on the average, markedly superior in learning ability to low-IQ middle-class children. In the

> IQ range above 100 . . . there are not significant differences in learning ability between lower- and middle-class children matched for IQ. This suggests that once the IQ has exceeded a certain level . . . it gives a fairly accurate assessment of learning ability regardless of social-class level. In the lower IQ range (which, incidentally, contains the modal performance of lower-class children), the IQ test grossly underestimates learning ability among lower-class children . . . . This is especially true for Negroes in the U.S.A. (Jensen, 1973, pp. 92-93)

Opponents of testing argue that the traditional practice of demonstrating the validity of IQ tests by predicting school achievement as measured on standardized achievement tests is itself invalid, since achievement tests are also culturally biased. They conclude that there should be no surprise that one culturally biased test would predict performance on another culturally biased test. Mercer (1979) reports that when grade point averages, instead of achievement test scores, are used as the criterion, differential validity for the three racial/ethnic groups emerges. The IQ tests consistently underpredict the GPA of black and Hispanic children, whereas they are fairly accurate predictors of the GPA of white children.

There is a conundrum in the defense of mean differences on tests used for placement based on their predictive ability, especially as these measures are used for the purpose of homogeneous grouping. If students' backgrounds have not exposed them to vocabulary, cultural customs, or patterns of analysis used on the test, then their subsequent placement in a low ability group may serve to create a self-fulfilling prophecy of expected low achievement. If children are placed in groups where expectations for achievement are low and the curriculum in relatively less substantive or if they are given less academic attention due to their "lower ability" then the test that so classified them will prove to be a good predictor of low achievement.

The overriding basic assumption regarding the use of tests is that the test user is an informed consumer who is knowledgeable about the psychometric basis of tests, the limitations of test interpretation, and the literature relevant to the tests used and the problems of testing. No informed consumer of tests would assert that tests measure the inherent abilities of children, rather that test performance is a combined result of heritability and cultural experience. However, the ways in which tests are used by the school seem to reflect a belief that the tests are measuring an immutable "given" quality in children.

Researchers recently have demonstrated that performance on standardized achievement tests is not unchangeable. Results from the past two years in the National Assessment of Educational Progress show that nine-year old black children, particularly in the Southeast, are making achievement gains greater than their nine-year old white peers (Elementary . . ., 1981). They have been, in fact, narrowing the achievement gap. Edmonds (1979), who studied schools in which children in the bottom third of the achievement distribution were learning at grade level, concluded that poor and minority children who are often found in that portion of the achievement scale can learn well if certain school characteristics are present.

The gap in average achievement scores of white children and minority children is probably alterable. What educators do about the gap is more important for minority children's life chances than whether there is a gap and how it got there. Building the academic organization of the school on measures of the current achievement distribution may simply reinforce the existing pattern.

In summary. Standardized tests of IQ and achievement are an important tool in the placement of students into ability groups and tracks. Because the mean differences in scores among various ethnic groups are substantial, use of tests in this manner resegregates schools. The consistent findings of group differences on tests suggest that if resegregation is to be avoided, attention must be placed on developing instructional strategies that allow students of found that potentially class related attributes such as work habits, social relations, personality and family background were used to classify students whose reading scores placed them at the margins of a group. While there was a tendency to move higher SES children up and lower SES children down, this occurred only with the marginal scores. He concluded from analysis of the data that class related bias displacements account for a very small amount of the disproportional placement found; most is attributed to the well established pattern of class differences in achievement test scores.

There is no direct empirical evidence that racial or ethnic bias contributes to the disproportionate low placement of minorities, but to the extent that teachers make placement decisions based on their impressions of students, one would expect minority students to suffer displacement into lower tracks. The high visibility of race and ethnicity compared to social class cues makes these students vulnerable to decisions based on prejudice.

Brishcetto and Arciniega (1973) report that educators view Chicanos as unmotivated, apathetic, nonadherent to time schedules, and incapable of learning in American schools. There is considerable evidence that black children are seen as less promising academically and more troublesome (Henderson et al., 1971; Rajpal, 1972; St. John, 1975; Gerard & Miller, 1976; Weinberg, 1977). An early study found white teachers characterizing black youngsters as high strung, impetuous, lazy, moody, rebellious and talkative, while black teachers saw them as ambitious, cooperative, energetic, fun loving and happy (Gottlieb, 1964). A more recent study found different standards used to judge black and white children. Southern teachers rated passive black students higher than passive white students (Long & Henderson, 1972).

These low expectations for minority students are associated with lowered achievement. A number of studies of minority student achievement demonstrate that these students do better with teachers who have high expectations and positive attitudes (Narot, 1973; Forehand, Ragosta & Rock, 1976). This is of course, consistent with the findings of considerable research on teacher expectancies.

The Effects of Student and Parent Choice on Resegregation

Student and parent choice is not always a factor in student assignment to academic groupings. Neither students nor parents participate in the formation of ability groupings in the elementary school. Student and parent choice does emerge as a factor in selecting secondary school tracks. Parental consent is either mandated or usually sought for placement in categorical programs, such as compensatory, special education, and bilingual education programs. The role of choice has not been extensively documented and should probably not be overemphasized.

Choice in tracking. Though student and parent choice is likely to emerge as a factor in decisions about track placement with future career implications, the patterns of ability grouping in elementary school will have set students on paths towards particular tracks long before formal choices are made. Educational experiences in low ability classes will have left many students without the skills necessary to compete in the high status college preparatory track in high school. Furthermore, ability grouping policies in high schools such as those documented by Green and Cohen (1979) and Larkins and Oldham (1976) may effectively limit track choices.

Economic and social pressures on students may channel students into lower tracks, where choice is a factor in assignment. Minority students report intensive peer pressure when they succeed academically--pressure not to "act white." Parents and teachers sometimes encourage choices by students that are not as demanding academically because they do not want the child to try and fail. Noblit (1979) describes academically successful minority females who can clearly succeed in college taking vocational courses, or sometimes taking the vocational track as a fall-back position or as something assuring a greater degree of success.

When the combination of these decisions results in a pattern of choice by minority children for vocational and general tracks over college preparatory or for regular level over advanced placement, resegregation is increased.

Parental consent for categorical programs. As was noted in the introduction to this section, parental consent is either mandated or usually obtained prior to student assignment in categorical programs. The role of the parent in such decision-making has received very little attention by researchers. When the school proposes that a child be involved in a compensatory reading class with a small number of children, it would be a rare parent to deny his/her child that opportunity for extra academic attention. The Hispanic community is very supportive of bilingual education as evidenced by their involvement in desegregation cases to save bilingual programs; thus it appears most Hispanic parents will endorse bilingual education for their children.

In the case of special education, parental consent is required prior to initial assessment and prior to provision of special education services, or placement. Parents frequently react to the school's concern about their child's behavior and/or achievement by giving permission to conduct an assessment. This evaluation is conducted by a multidisciplinary team who then meets with the parent(s) and the child, when appropriate, to formulate an individual educational plan and determine placement, if that child is considered handicapped. Weatherly (1979) found a strong tendency for professionals to reach a consensus before parents were involved, so that parents' understanding of and influence on the process were very limited. It would not be surprising for parents, when confronted by a team of experts, to consent to the recommended program. From one of the author's experiences in serving families of handicapped children at a university clinic, parents frequently are unaware of the label of the child's handicapping condition and are unaware of the type of special education services the child is receiving. Yet these same parents may have participated in writing the original individual education program and may have reviewed it annually with the child's teacher. Thus it is highly unlikely that schools are failing to give this information to parents, but it is most likely that schools are not communicating that information in a manner which the parents can understand. This is most obvious in the case where an all English-speaking team meets with a Spanish-dominant parent. It appears to be fairly unusual for parents to oppose or have much influence on the school's recommendation for special education.

While there may be the potential for student and parent choice regarding assignment to categorical programs, the bureaucratic structure of the school and the ecology of the decision-making arena tend to limit the influence of their participation.

Program Organization

The degree of incompatibility of programmatic regularities (ability grouping and tracking, compensatory education, special education, and bilingual education) and desegregation lies in the way in which these programs are organized. Too often ability grouping and tracking become rigid organizational practices, resulting in resegregation for the large majority of the school day. Compensatory educational services are usually offered on a pull-out basis, which has been shown to be a resegregative practice of questionable effectiveness. The delivery of special education or bilingual services may be organized along a continuum of services, from limited pull-out to full-day placements. Full-day placements, whether in ability-grouped classes or special or bilingual education, are clearly resegregative. The degree to which those programs organized on a pull-out basis are resegregative depends on the extent to which the pulled-out students are disproportionately minority group members. Resegregation via pull-out programs also depends on the amount of time for which children are pulled-out.

Multiple Eligibility for Categorical Programs

The racial isolation of children created by pull-out programs may be compounded by multiple eligibility. Categorical programs have distinctive histories, have come about as the result of pressures by a variety of different organized interests and are administered by different units. An individual child who is, for example, poor, low achieving, in a racial minority and who is not proficient in English may be entitled to several separate pull-out program services. This may lead to isolation from regular classes simply to allow time for participation in all the compensatory programs, or if sufficient numbers of students are involved, it may lead to grouping multiply eligible students for administrative convenience.

It is clearly possible for an individual to be eligible for the services of more than one categorical program, but there is very little data on how many students actually participate in multiple programs. Coulson et al. (1977) noted above-average proportions of Title I-eligible students in ESAA-eligible schools, however, no data were provided on the magnitude of multiple eligibility or service. Hill (1979) noted an NIE report that indicated that 27% of Title I students are in special pull-out classes throughout the entire school day, receiving no regular classroom instruction.

Kimbrough and Hill (1981), following an exploratory study, concluded that Hispanic children, especially those from migrant workers' families, are most likely to have multiple program eligibility; many of these children were found to participate in four or five different programs. Kimbrough and Hill also found that in most of the schools in their study, students were actually placed in all programs for which they were eligible. Theoretically, the students could be eligible for all of the programs described in this report, although the combination of Title I and special education services funded by P.L. 94-142 has been the subject of controversy (Hill, 1979).

It is clear that pull-out may become increasingly segregative as the number of programs in which the child participates increases. School districts have difficulty coordinating programs to reduce conflict as they struggle to avoid violating one set of mandates in order to comply with another. This is especially difficult when implementing categorical programs simultaneously with desegregation.

Summary: Resegregation Through Academic Programs

We have reviewed the academic/programmatic regularities which schools use to address academic heterogeneity of the student population. The resegregative effects of these regularities--ability grouping and tracking, compensatory education, special education, and bilingual education--have been documented. There are three factors associated with resegregation via these practices: student assignment, program organization, and multiple eligibility for categorical programs. Student assignment is a complex decision-making process with potential for bias in testing, school personnel judgments, and in student and parent choice. Such student assignment practices tend to result in overrepresentation of minority children in the lower academic groupings and underrepresentation in the higher academic groupings.

Program organization varies with the practice. Ability grouping and tracking too often become rigid organizational structures from which it is difficult to escape. Compensatory education is generally offered on a pull-out basis; special education and bilingual education vary along a continuum from pull-out to full-time separate classes. The degree to which these grouping practices result in resegregation depends on the extent to which minorities are overrepresented in enrollment and the extent to which the children are segregated from the regular classroom. The problems that school districts face in attempting to deliver educational services are exacerbated by the multiple program eligibility that results from fragmented public policymaking. It seems that while public policy has encouraged and financed school efforts to provide programs for identified groups of children, not enough attention has been devoted to the fact that individual children may belong to several groups.

The Impact of Discipline Practices on Resegregation

The behavioral regularities reflected in school discipline policy are the school's attempt to deal with diversity of the student population while maintaining the stability and order necessary to the business of teaching and learning. Since 1973, when the Southern Regional Council published The Student Pushout: Victims of Continued Resistance to Desegregation, there has been concern about the exclusion of minority children from desegregated schools for disciplinary reasons. With few numbers but many anecdotes they suggested that newly desegregated districts suspended and expelled disproportionate numbers of black youngsters, starting them on a cycle that resulted ultimately in dropping out of school. This pushout phenomenon is thus thought to contribute to resegregation.

In this section, we will (1) document the racial disproportionality in suspension and drop-outs in American schools, (2) examine their relationships to school desegregation, and (3) explore the possibility that this disproportionality results from discriminatory administration of discipline and negative school climates and teacher attitudes.

Suspension

Suspensions are a widely used disciplinary technique. Based on the OCR fall 1973 survey of 2,917 school districts, the Children's Defense Fund (1974) estimated that one out of every 20 school age children were suspended in the 1972-73 school year. The districts included represented over 50% of all public school enrollment and 90% of all minority student enrollment.

Suspension is an overwhelmingly secondary school practice. The OCR survey indicated that 4.2% of all students were suspended at least once in 1972-73, but the figure for elementary students was .9% while it was 8% for secondary students (Kaeser, 1979b). In individual school districts, the proportion of secondary students suspended may be much higher than the national average; in Denver, for example, the figure was 30.6% (Children's Defense Fund, 1974).

There are no government mandates for specific disciplinary practices, such as suspensions and expulsions; however, there are government constraints on discipline and the procedures of imposing discipline. A general underlying theme to these constraints is that of Title VI of the 1964 Civil Rights Act which requires that no program or activity receiving federal financial assistance be discriminatory. Beginning with the 1972-73 school year, the Office of Civil Rights, in monitoring desegregation, has regularly collected data on suspensions, expulsions, and corporal punishment administered, by race. Title VII of the Emergency School Aid Act, which provides assistance to local districts in accomplishing "meaningful desegregation," includes funds for Special Student Concerns Projects to assist school districts with discipline and suspensions during desegregation, including determination of racial effects and operating programs to equalize them.

School disciplinary practices have been the focus of several litigation efforts. The first of these was Dixon v. Alabama State Board of Education (1961) in which it was ruled that due process, including notice of charges and opportunity for a hearing, is required before expulsion (in this case from a state college). This principle was subsequently applied to expulsion from high school (Children's Defense Fund, 1974). The decision in Goss v. Lopez (1975) expanded this policy to suspension of any length. The courts have also ruled on the appropriateness of disciplinary procedures (i.e., suspension and expulsion) to the nature of the student offense (Tinker v. Des Moines Independent Community School District, 1969; Goss v. Lopez, 1975). Furthermore, students can sue school officials for damages if their constitutional rights are violated in disciplinary action(s) (Woods v. Strickland, 1975). Recently, a Connecticut court ruled that suspension and expulsion of handicapped students is limited by P.L. 94-142. If the disciplinary problem is related to the child's handicapping condition, then a change of individual program or special education placement is warranted rather than suspension or expulsion (Stuart v. Nappi, 1978).

Resegregation Through Suspension

A clear pattern of race disproportions in suspension has been extensively documented in LEAs across the country. Some of this evidence is presented in Table 13. Clearly, every city listed in Table 13 had a much larger percent of minority suspensions than they did minority enrollment.

Table 13
Percent Minority Enrollment & Suspensions in Urban Areas

Sample	% Enrollment	% Suspensions	Source
BLACKS			
Mobile	46.0	64.0	National Public Radio, 1974
Indianapolis	41.4	60.3	
Pittsburgh	42.4	60.0	
Prince Georges Co., Md.	28.0	43.0	
Boston	34.1	47.0	
Dade Co., Fl.	26.0	53.0	
MINORITIES			
New York	64.4	85.9	CDF, 1974
Houston	56.4	71.0	
Cleveland	59.4	71.0	
Memphis	58.0	70.2	

Aspira (1979b), in a nationwide study of school districts having enrollments of at least 3,000 and at least a five percent Hispanic enrollment, found that Hispanos were generally less likely to be suspended or expelled than non-Hispanos, which of course includes blacks. Carter (1981) also reports that in those regions with the largest Hispanic enrollment a slightly smaller proportion of Hispanos are suspended than of non-Hispanos.

A study by the National Education Association found that in the 21 largest school districts in the U.S., 72% of all suspensions were black (Arnez, 1978). However, racial disparity in suspensions is not limited to large urban districts; two-thirds of the districts surveyed by OCR had higher black than white suspension rates (Arnez, 1976). The Children's Defense Fund (CDF) analyzed OCR data for 1972-73 and found twice as many black children suspended as white (Kaeser, 1979b). OCR data for 1976, analyzed by region, is consistent with the earlier CDF reports. Black students were from 2 to 5 times as likely to be suspended as white students in all regions of the country. The data for Hispanos was mixed, with few regions showing large disparities. Those regions with the largest Hispanic enrollments report a slightly smaller proportion of Hispanos suspended than whites (Carter, 1981).

Analysis of 17 more recent district and state studies were consistent with patterns reported by CDF and others. These reports were gathered from: Louisville, Jefferson County, Kentucky; Tampa, Hillsborough County, Florida; Prince Georges County, Maryland; Boston; Richland County Districts 1, 2 and 50, South Carolina; New Orleans, Louisiana; Dallas, Texas; Buffalo, Rochester and Syracuse, New York; Cleveland, Columbus, Dayton and Ohio State-wide Study, and Portland, Oregon.

Black students were not only suspended at a greater rate than white students, but also received lengthier suspensions. On an average whites are out of school for 3½ days per suspension; the average for blacks is 4½ days (Hall, 1978).

Suspensions were also more likely to be repeated for black students. The Children's Defense Fund study showed that 27% of suspended black students were suspended at least 3 times in the school year, while this was true for only 11% of suspended whites (Children's Defense Fund, 1974).

Though suspension is generally considered a secondary school discipline procedure, minority children are suspended at younger ages than whites. The CDF, using 1972-73 OCR data, analyzed patterns in 30 areas (census tracts, precincts, or housing projects) in nine states and Washington, D.C. Their findings are reported in Table 14.

Table 14
Percent Suspended By Age

Group	% Suspended Age 6-17	% Suspended Age 12-17
Black	7.3	12.8
White	2.3	4.1
Mexican-American	3.9	7.1
Puerto Rican	4.5	9.4

Relationship of Suspension to Desegregation

In order to determine the resegregative impact of the disparity in suspensions of minority students, it would be useful to have data on suspensions before desegregation to determine if disproportions increased. Although most school districts did not analyze discipline data prior to desegregation, there is some direct evidence of an increase in disproportionate suspensions and a good deal of suggestive related material.

A number of districts show an overall increase in the number of suspensions during the first year of desegregation. For example, Columbus, Ohio suspended 1,648 students in the first two months of the initial year compared to 1,435 the previous year (Columbus, 1980). Louisville doubled suspensions the first year, from 7,212 to 16,272 (Project Student Concerns, 1977). In Tampa, the same pattern occurred, from 4,805 to 8,598 the first year (Foster, 1977). In Milwaukee, 62% of junior high students and 45% of high school students were suspended, compared to 52% and 30% respectively the year preceding desegregation (SRC, 1979). A study of suspension in Little Rock concluded that unequal suspension of blacks is "less severe" where black enrollment is under 15% and "appears to be worse" where black enrollment is 30-40% (Southern Regional Council, 1979).

Several cities report an increase in the disparity between black and white suspensions as well as an increase in overall suspension rates subsequent to desegregation. In Little Rock, 829 blacks were suspended in 1968-69 compared to 1,504 in 1971-72, one year after desegregation began. While black enrollment increased from 31% to 37.7%, black suspensions went from 62.4% to 79.9%, a slight increase in disproportionality. In Charlotte-Mecklenberg County during the same period, suspensions increased from 1,544 to 6,652 (SRC, 1979).

In Trent's report of intensive interviews of professionals in desegregated school districts from across the country, a majority of respondents said that discipline problems had increased with desegregation, although some attributed it to other causes, and others noted that it was a phenomenon in the immediate post-desegregation period which is declining. Half of the respondents reported that discipline was disproportionately administered to minority students (Trent, 1981).

Adding to the concern that disproportionate suspensions are acting to resegregate students is growing evidence that post-desegregation suspension rates may be related to the racial composition of the school.

In Milwaukee, schools that were virtually all-white and changed to 15-34% black after the court order had the largest increase in overall suspension rate and the highest disparity in black suspensions; previously integrated schools that experienced little change in black enrollment underwent little change in black suspension disparity and no overall increase in suspensions (Larkin, 1979). Testimony in Hawkins v. Coleman pointed out that the black suspension rate in Dallas was 600% higher in majority-white than in majority-black schools (Hall, 1978). In Cleveland, no clear relationship between high and low suspension rates was found among both all-white and all-black schools (at least 90% one race); however, a disproportionate black suspension rate was found in nearly all integrated schools (Kaeser, 1979b).

In the Aspira (1979b) study of schools having enrollments of at least 3,000 students and five percent Hispanos, a clear relationship was shown between suspension rate and segregation level of the schools.

> The proportion of Hispanos suspended was lower than the proportion of non-Hispanos suspended regardless of the level of segregation. However, the variation in suspension rates by level of segregation differed for Hispanos and non-Hispanos. For both groups, the lowest rates occurred in highly segregated districts. However, Hispano suspension rates were highest in moderately segregated systems while non-Hispano rates were highest in less segregated systems.

> Since moderately segregated districts also had the highest proportion of Hispanos with language problems, this suggests that cultural differences may be construed as behavioral problems that require mild disciplinary action. Alternately, the language differences may have increased interracial strife among students, leading to mild disciplinary action. (Aspira, 1979b, p. 10)

These overall trends suggest that it is the schools with the greatest potential for interracial contact that are most prone to use disciplinary techniques that substantially resegregate students within the school.

Drop-outs

While disciplinary suspension temporarily removes children from schools, the drop-out leaves permanently. Though there may be many reasons for individual students to drop out of school, these reasons may be summarized as a lack of student fit in the school culture; the students' needs and values are in conflict with the school's offerings and values.

Resegregation Through Drop-outs

Just as there is racial and ethnic disparity in suspension practices, there is such disproportionality in drop-out rates. Compared to the national drop-out rate for 14-17 year-olds of 10%, the rate was 15% for blacks, 20% for Hispanos, and 22% for American Indians (National Center for Education Statistics, 1981).

The Youth Advocacy Project reported two to three times the drop-out rate for black youth in the seven New York cities they examined (Block et al., 1978). This disproportion has also been found in Wilmington (Grantham, 1981), eleven schools in two midwestern cities with black enrollment of 5-20% (Bennett, 1981; Bennett & Harris, 1981), and Kalamazoo (Green & Cohen, 1979). Tompkins (1978) found less clear patterns in a study of seven Ohio school districts, four had similar drop-out rates for blacks and whites, one a lower rate for blacks, and two a higher rate for blacks.

The Hispanic drop-out rate is even more disproportionate. For every 10

Mexican Americans who enter first grade, only 6 graduate from high school, compared to 9 out of 10 entering whites (U.S. Commission on Civil Rights, 1974). According to the U.S. Bureau of the Census (1976), 26.5% of the Chicano population 25 years or over had not completed even five years of schooling; and only 29.1% had graduated from high school. Aspira's (1979b) report indicated that the Hispanic drop-out rate exceeded that for non-Hispanos (including blacks) in all regions of the U.S. except the East Coast.

Not only is the Hispanic drop-out rate higher than black and white drop-out rates, Hispanos tend to complete fewer years of schooling. Haro (1977) reported 1970 U.S. Census data on years of schooling by ethnic groups in the Southwest (see Table 15). Though the years of schooling accomplished by each ethnic group varied by state, a clear trend emerged: blacks completed fewer years of schooling than whites, and Hispanos completed fewer years of schooling than blacks. The young age at which Hispanos drop out of school is even more dramatically portrayed when examining drop-out rates by grade level.

Table 15
Years of Schooling Completed by Ethnic Groups in the Southwest, 1970

	States				
Ethnic Group	Ariz.	Calif.	Colo.	N.Mex.	Tex.
Anglo	12.1	12.4	12.4	12.2	11.9
Spanish Surname	8.8	10.6	9.8	9.7	7.2
Black	8.8	11.9	12.2	10.9	9.7

Source: Haro, 1977.

Carter (1970a) reported data collected by the Governor's Committee on Public School Education in Texas (see Table 16).

Table 16
Estimated School Dropout Rates by Grade Level, Texas
(Percent of Total Dropout by Grade
and Ethnic Group)

Grade	Anglo	Latin	Negro	Total	Cumulative
7	4.8	17.6	7.2	9.3	9.3
8	7.0	17.1	8.9	10.6	19.9
9	15.0	22.5	19.2	18.1	38.0
10	28.5	23.2	26.7	26.4	64.4
11	27.4	13.7	23.6	22.3	86.7
12	17.4	5.9	14.4	13.1	99. 8
total	100.1	100.0	100.0	99.8	

Source: Carter, 1970a, p. 27

In summary, there is a disproportionate drop-out rate among minority students, with blacks dropping out more frequently and earlier than whites and Hispanos dropping out more frequently and earlier than blacks.

Relationship of drop-outs to suspension. Although there is surprisingly little evidence that the same students who are repeatedly suspended eventually drop out of school, districts with high suspension rates also have high drop-out rates (Grantham, 1981). Bennett and Harris (1981) found that the schools they studied which had high rates of black suspensions also had disproportionate numbers of black students dropping out of school. Grantham (1981) found a similar relationship between disproportionate suspension and drop-out rates, though the association between level of white student suspensions and drop-outs was somewhat stronger than the association between the level of black suspensions and drop-outs. Perhaps a more diverse group of black students is suspended.

Relationship of Drop-outs to Desegregation

There are few studies specifically relating drop-out rates to desegregation. Two will be summarized here; the first of these is a global study relating drop-outs to levels of school segregation, the second examines the specific factors associated with the relationship of drop-out rates to desegregation.

Aspira (1979b), in a nationwide study of schools having an enrollment of at least 3,000 students and at least a 5% Hispanic enrollment, concluded that drop-out rates for Hispanos are highest in highly segregated school districts; the rate for non-Hispanos including blacks, followed a similar trend. A greater proportion of Hispanic students from less segregated schools than from moderately or highly segregated schools. The pattern for non-Hispanics, including blacks, is the same. Though there was some variability across the regions, less segregated school districts always produced a larger proportion of Hispanic graduates than highly segregated districts. This pattern held true for non-Hispanos as well, except in the South where a higher graduation rate was found in highly segregated districts. There were no moderately segregated districts included.

Felice and Richardson (1977) examined the hypothesis that minority student drop-out rates would decrease with school desegregation. The data were from a four-year (1970-1975) longitudinal study of majority and minority students' achievement and self-concept in a southwestern community with a population approximately 65% white, 20% black and 15% Mexican-American. The federal court had ordered the school district to bus 1600 minority students to previously all-white schools, thus minority data was available before and after 3 years of busing for minority students. Drop-outs from both time periods were interviewed at home to augment basic survey data and school record information. Furthermore, teachers in all of the schools were surveyed to provide data on staff attitudes, expectations, and behavior.

Felice and Richardson concluded that the drop-out rate for minority students is dependent upon the social climate of the schools into which they are placed. Their major finding was that minority students in higher SES school environments with more favorable teacher expectations had lower drop-out rates. The descriptive evidence in the study is similarly instructive. Minority students who were bused in 1975 had higher drop-out rates than minority students who were not bused (10.8% for blacks bused vs. 6.2% for non-bused blacks; 13.5% for Mexican-Americans bused vs. 10.5% for non-bused Mexican-Americans). Moreover, for blacks bused there was a substantial increase for 1975 drop-out rates over 1971 drop-out rates (10.8% vs. 6%) while for non-bused blacks the drop-out rates were reported to have declined from 6.4% to 6.2%. Also, the white drop-out rate for 1975 in the bused group was found to be lower than the 1975 drop-out rate for whites in the non-bused category, indicating no deleterious effects of school desegregation for white students.

Still other findings illustrate that teacher ratings of minority student academic ability and minority student effort differed depending on the concentration of students from high socioeconomic background in the school. In high SES schools, 52% of the teachers rated minority academic ability good to excellent compared to 36% of the teachers in low SES schools. In high SES schools, 32% of the teachers rated minority student effort as good to excellent compared to only 18% of the teachers in low SES schools.

These findings lead Felice and Richardson to conclude:

> The school's ability to motivate and equip its students to remain in school may well be the most basic dimension to the current effort to equalize social, economic, and cultural differences and abilities of entering students (p. 50).

In summary, Felice and Richardson (1977) found that the drop-out rate for minorities was significantly reduced when the school climate was favorable.

Reasons Resegregation Occurs Through Discipline Procedures

There have been a number of reasons advanced to account for the racial and ethnic disparity in disciplinary actions. Some suggest that the disproportion stems from greater misbehavior on the part of minority students. Others point to differential application of school behavior standards. The increase of suspensions that occurs when minority students attend previously all-white schools suggests that a combination of factors may be at work, abetted by insensitivity of school professionals to cultural differences in behavior.

The large disparities in suspension rates among schools, even within districts, argue against blaming students. Many schools and districts with high minority enrollments do not suspend minority students at a high rate Children's Defense Fund, 1975; Van Fleet, 1977). Beneath the overall pattern of racial disparity enormous variations among individual schools exist. In two Ohio districts overall suspension rates in secondary schools varied from .4% to 72.5% (Kaeser, 1979b). In Milwaukee, suspension rates among junior high schools ranged from 2% to 10.5% (Larkin, 1979). Among Louisville secondary schools, the black-white difference in percent of students suspended varied from 6.3% to 59.6% (Project Student Concerns, 1977).

These differences in suspension rates seem to reflect the ways in which particular principals and teachers apply rules. Some educators do not use suspension at all; others use it infrequently; others use if frequently for a wide range of offenses. It is in school districts that use it frequently that the disproportion of minorities is also high.

The notion that heavy use of suspension is determined by the inclinations of school personnel rather than student behavior is strengthened by several studies identifying behaviors leading to suspension. In general, suspensions for all students are primarily given for behavior that is not violent or dangerous to person or property. In the Louisville schools, the Kentucky Bar Association found that 78% of suspensions were not for dangerous behavior or property destruction; about one-half of the suspensions were attendance-related (Project Student Concerns, 1977).

A survey by the National Association of Secondary School Principals showed that attendance violations such as cutting classes, truancy, tardiness were the most frequent suspendable offenses followed by smoking, nonviolent disruptive acts, violation of school rules such as bus and cafeteria conduct, physical violence or threat of it, and such other major offenses as theft or drug use (Project Student Concerns, 1977).

The Children's Defense Fund (1974) survey revealed a similar pattern. Based on interviews of approximately 600 suspended students and/or their parents, they found that 63.4% were suspended for nonviolent offenses. This included 24.5% for attendance, 13.6% for such behavior problems as "acting out" and cursing, 8.5% who argued with teachers or other students and 16.8% for miscellaneous offenses such as smoking, dress code violations and drug use. The remaining 36.6% were suspended for violent acts such as fighting with teachers or other students.

Although not all studies have shown differences in the types of offenses leading to suspension, where there are differences, blacks are often found to be suspended for less dangerous offenses. Studies conducted in Tampa, Dallas and Cleveland concluded that black children were more likely to be suspended for "subjective" offenses rather than "objective" ones. Subjective offenses were those requiring a personal judgment and included disobedience, insubordination, disruptive or disrespectful behavior, profanity and dress code violations. Objective offenses that can be more clearly measured included use of alcohol or drugs, assault, possession of weapons, truancy and the like (Foster, 1977).

Studies from Louisville, Columbus and Kalamazoo show disproportionate suspensions but not differences in reasons for suspension by race (Project Student Concerns, 1977; Columbus, 1978; Green & Cohen, 1979).

Black students are sometimes disciplined for behavior that is allowed white students (Foster, 1977; Green & Cohen, 1979), and there is evidence in a Little Rock study that blacks and whites committing the same offense, e.g., fighting, may be punished differently, with only the black student suspended (SRC, 1979).

Where alternatives to suspension have been introduced there is little evidence that racial disparities in discipline have been reduced. Alternative schools may become new ghettos for minority students. Williams reported that alternative programs may become identified as minority programs with the result that majority students refuse assignment to them. He noted a Michigan school that had no white participants in 1975-76 and another district which is 14% black but has 80% black students in its alternative school (Williams in Garibaldi, 1979). The Longfellow Alternative Program, a separate school in Louisville, is overwhelmingly black; 244 of 278 referrals in 1976 were black. In that same district, the Youth Readjustment Program, which uses classrooms in regular schools, is predominantly white; 373 of 512 referrals were white in 1976 (Arnez, 1978). Arnove and Strout (1978) conclude from their nationwide study of alternative schools that they are often used to isolate minority group members who are perceived to have behavioral problems.

Where in-school suspension programs are used, there is no evidence that the racial disproportion of either in- or out-of-school suspensions drops. There is some evidence that the disparity remains even though the overall suspension rates drop (Bickel & Qualls, 1979; Killalea Associates, 1978). Of course, an overall drop in suspensions will reduce their resegregative effect even if disparities remain.

There is some evidence that school climate and teacher attitudes are associated with discipline problems in desegregated schools as well as with discipline problems generally. Desegregation results in a socially heterogeneous population of students within the school. Many teachers are confronted with students whose behavior they do not understand, and they feel ill equiped to respond to or cope with such behavior.

Hispanic students come from a culture in which norms of appropriate behavior differ from white norms. Teachers confronted with Hispanic-appropriate behavior may tend to interpret that behavior from their own Anglo-normative base, thus misinterpreting the student's behavior, intentions, or needs. Black students may adopt styles of dress and behavior that are in conflict with school professionals' sense of propriety. The initial period of desegregation would be particularly difficult; one might expect to find the increase in discipline problems and suspensions that has, in fact, occurred.

There is some evidence that teachers in desegregated schools recognize that a lack of effective communication with students from cultures different from their own contribute to discipline problems. Trent (1981) found 38% of professionals in 17 desegregated districts citing communication problems and insensitivity on the part of school district personnel as factors in increases in discipline problems and racial disproportion in discipline. In an earlier study of a recently desegregated district in the South, white teachers thought their discipline problems with black students were related to their difficulties in communicating with these students. Only half as many black teachers--12% compared to 27% of whites--reported discipline problems with students of the opposite race; and more white teachers attributed these problems to communication problems between the races (Wynn, 1971).

Just as positive teacher attitudes about integration contribute to selection of instructional strategies that facilitate integration (Epstein, 1980), they are also associated with fewer discipline problems. Peretti (1976) reports that teachers who support busing for desegregation perceive a smaller increase in discipline problems than teachers who oppose it. Bennett and Harris (1981) studied schools in two midwestern cities having from 6% to 20% black enrollments. They found a pattern of differences between student and staff perceptions in schools with a high disproportionality in suspensions and drop-outs and in those with low disproportionality. Furthermore, busing and students' background were not a factor in racial disproportionality in suspensions. Rather, unfair punishment was a characteristic perceived by students in high disproportionality schools. In one city the schools with highest disproportionality were perceived as using unfair punishment and having a poor climate and a negative interracial environment. School life was seen as being dominated by white students, and power was held by school system officials and not shared with "grassroots" groups--students and parents. There was also a greater tendency for students to report a dislike for school.

Schools which did not suspend a disproportionate number of black students were perceived to use fair punishment, to be high in both institutional and grassroots power, and to have a positive interracial environment; school life was characterized by more interracial friendships and was not viewed as being dominated by whites. In the other city studied, these differences, except for fairness of punishment, were not as clearcut. Bennett and Harris (1981) also noted a relationship between racial disparity in suspensions and in drop-outs, but found less disproportionality in drop-outs than in suspensions for all schools.

In summary, there is evidence that discipline practices contribute to resegregation within desegregated schools. Suspensions are a common disciplinary technique, and black students are much more likely to be suspended than other students. This phenomenon of racial disparity is thought to be accute in recently desegregated schools, particularly those with a proportion of black students above 15%.

The sources of this disparity are not clear, but there is some evidence that the blame cannot be laid entirely on misbehavior of black students. Blacks are somewhat more likely to meet disciplinary action for "subjective" offenses in which school personnel--who may have had little previous contact with black students--must make judgments about appropriate dress, insubordination and so forth. The tendency for black students to be disproportionally suspended is associated with negative teacher attitudes towards integration with reports of communication problems between the races and a perception that discipline is unfairly administered.

Racial disparity in drop-out patterns has also been observed, and there is an association between suspension patterns and drop-out patterns in schools. Perhaps the school drop-out is the most clear-cut behavioral manifestation of a lack of fit between two cultures--that of the student and that of the school.

Summary and Conclusions

The problem of resegregation usually grows out of schools' responses to externally imposed change. As school desegregation yields increasing academic and behavioral diversity within schools, schools rely on traditional assessment, instructional, and disciplinary practices that are aimed at producing homogeneous groups of students that also tend to be racially and ethnically more homogeneous than the school population at large. These practices may be well-intentioned and based on the dominant educational philosophy of meeting individual educational needs. Nevertheless, the means for achieving this goal that are typically part of the school culture and manifested in its organizational routines conflict with the institution of educational processes that are intended to bring about integrated education in desegregated schools. This creates a paradox for students. As school level diversity increases, the diversity of contacts experienced by each student may actually decrease as homogeneous grouping practices are more extensively used to manage this diversity.

Academic grouping practices that are commonly used to manage diversity include: ability grouping and tracking, compensatory education, special education, and bilingual education. Resegregation results from pupil assignment practices and organization of these programs. Factors associated with resegregation via student assignment practices are use of standardized testing, racial and ethnic bias or cultural insensitivity of school personnel, and student and parent choice. Traditional student assignment practices invariably result in the disproportionate assignment of minority students to low ability groups and to other programs addressing academic deficiencies. The organization of the programs thus becomes crucial, for it is the organization that determines the degree to which the programs become resegregative.

Program organization determines the degree to which minority students have an opportunity for equal status interaction with their majority peers. Any ability grouping or tracking system will tend to resegregate as long as race and class are associated with measures of achievement. Flexible programs that group for particular goals will provide more opportunities for interracial contact than rigid programs that track students for all academic experiences on the basis of a particular achievement such as reading level. Full-time programs for special and bilingual education result in obvious resegregation. Pullout programs may be potentially less segregative since less time is usually spent out of the regular classroom. However, many minority children may be involved in numerous pull outs on a daily basis, as a result of their eligibility for multiple programs. The fragmented nature of the public policies mandating such programs and the concomitant fragmentation of the services provided at the school level serve to exacerbate the problem of resegregation.

The school's response to the social diversity of the student population is reflected in its disciplinary procedures. Black students, more than Hispanics, are disproportionately suspended. Both blacks and Hispanics drop out of school at disproportionate rates, but Hispanics tend to have a higher drop-out rate than blacks and tend to drop out at an earlier age. Teacher attitudes and school climate are associated with resegregation via discipline policies. The drop-out rate of minorities in the school is evidence of a lack of fit between the school culture and the minority culture.

In order for schools to reduce or eliminate within-school resegregation, they must implement fundamental changes in the organization of instruction and in the assessment of student performance and in their ways of dealing with student behavior. Student assessment should incorporate a wide range of information from a variety of sources and should be interpreted by well-informed consumers of testing information. Instruction should be organized so that heterogeneous groups of students have the opportunity for educational interaction; special support services should be provided with as much integration with the regular school program as possible. Student discipline should emphasize keeping students in school, dealing with the sources of behavior problems including the influence of school climate on behavior, and the development and enforcement of discipline policy in a racially and ethnically equitable manner.

Part of the resistance to creating changes necessary for successful integration may result from the overwhelming nature of the changes required. For teachers and administrators this means change in attitudes and behavior, as well as change in curricula, instructional methods and strategies for social control, classroom management and relationships with parents. Some of these changes are a part of adapting to any innovation. But in school desegregation, these problems--all of which are sources of personal stress--must be confronted simultaneously.

The perpetuation of programmatic and behavioral regularities is frequently due to a lack of knowledge regarding the universe of alternatives to traditional practices. Solutions to the problem of resegregation are much more complicated than simply ending ability grouping and tracking, adding alternative discipline systems or sensitizing teachers. There are differences in children's ability to do schoolwork and children to have different needs that must be accommodated by differences in instruction and curriculum. The task is to find methods of assignment and organization that are responsive to differences and yet encourage equal status interracial contact.

While the number of effective alternatives to resegregating students is limited, there are some options. The most promising research and practical application in the area of classroom organization is the family of techniques called cooperative learning or student team learning. These instructional methods involve students working together in small, heterogeneous groups to learn academic materials and may include intergroup competition. Some relevant research reports are Johnson and Johnson (1974); Weigel, Wiser and Cook (1975); Lucker, Rosenfield, Sikes and Aronson (1976); Hamblin, Hathaway and Wodarski (1971); and Slavin (1977a, 1977b, 1977c, 1977d, 1977e, 1977f, 1978a, 1978b, 1979a, 1979b, 1979c, 1979d, 1980a, 1980b).

These methods tend to raise achievement for black children and for low ability children much more than traditional classroom patterns of individual competition for grades and praise. White children and high ability children tend to fare as well in team learning situations as in traditional classrooms. Twenty-four of thirty-four well designed comparisons in actual classrooms show positive achievement results for team learning. A wide variety of subject matter amenable to objective testing and involving grade levels ranging from two through twelve in urban, rural and suburban settings have been tested.

Team learning also produced consistent positive findings in race relations in desegregated settings. Working together on academic tasks with biracial team leads to more cross-racial friendships than in traditional classrooms where existing cross-racial friendships sometimes break down and reduces interracial friction.

In addition to the team learning strategies, a number of techniques have been developed to allow students maximum proximity and interaction with diverse peers while also facilitating individual development. This usually means combining some form of individually guided instruction with team teaching, multi-age classrooms, flexible temporary instructional groupings, peer tutoring or other strategies to encourage student interaction and avoid use of rigid homogeneous groupings.

Another set of practices which reduces resegregation concerns alternatives to pulling students out of the classroom for compensatory or other special services. Pullout programs for both handicapped children and to provide remedial services can be ended by mainstreaming children and extra resources into the regular classroom setting.

Evidence suggests that children classified as EMR or otherwise handicapped benefit from mainstreaming (Dunn, 1968; Lynch, Simms, Heppel & Schuct, 1978). Evidence on mainstreaming low achieving children not classified as EMR or SLD also suggests that within classroom assignments results in achievement gains not unlike those in "pullout" programs. "Pullout" programs appear to have no achievement gain advantages over within class additional instruction (NIE, 1978).

Mainstreaming without altered classroom practices may result in grouping practices within the classroom that segregate handicapped children or low ability children. Simple mainstreaming without attention to classroom practices is thus a partial but incomplete strategy to eliminate resegregation. The key may be in providing support services to classroom teachers rather than removing difficult to serve students.

There are several models of bilingual education which may be consistent with integration. Where there is a substantial linguistic minority and a commitment to providing both minority and majority students with the benefits of skill in two languages, then an integrated two-way program can be developed. Alternatively, a truly transitional program can be developed to help LEP students function effectively within the mainstream program.

Another set of processes that reduce resegregation are in-school and in-classroom methods of coping with student behavior problems. These are already in place in many schools and have been shown to reduce suspension rates, although there is no evidence that they reduce racial disproportionality in suspensions (Garibaldi, 1979; Kaeser, 1979a, 1979b; Mizell, 1979; First & Mizell, 1980; Chesler, 1979; Hollingsworth, 1979; Wayson & Pinnell, 1978).

Analyses of existing in-school programs to cope with disruptive student behavior show that they are not a simple solution that can be put in place in any school to cope with a general problem. Careful analysis of the causes for suspension and expulsion are important before designing an in-school program (First & Mizell, 1980). Once teachers who are suspending high numbers of minority or handicapped children and reasons for suspensions are identified, a plan can be developed for working with both teachers and students. One part of that plan may be a cooling off room, or additional counseling or an in-school suspension program that might reduce suspension overall and give school personnel more options for student discipline.

Each of these strategies--cooperative learning, mainstreaming, and in-school programs to deal with student behavior problems requires staff training and support services. The training has as its goal different behavior rather than different attitudes. Organizing a classroom for student team learning, developing appropriate forms and analysis for discipline referrals, understanding various tests and the use to which their results can properly be put are the types of training needed to pursue the strategies that will reduce or eliminate resegregation.

Efforts to enhance the capacity of schools to effect change and implement professional development activities designed to promote development of specific alternatives to school practices are important. But the tendency to resegregate stems not only from resistance to change and ignorance, but also from the paucity of well developed alternatives to educational strategies that currently lead to resegregation.

There is a need to stimulate research and development activities that focus on these issues. These unmet needs include development of: models for the coordination of delivery of services targeted at various special needs; strategies for delivering special services in the mainstream classroom; models for providing consultative support to the classroom teacher; non-segregative models of bilingual education; an array of instructional techniques that are effective with heterogeneous groups of students; models of curriculum organization at the secondary level that facilitate contact between students with different vocational goals; improved discipline practices.

Traditional practices, though resegregative, have survived because they are thought to be necessary to achieve the two basic goals of the school, academic achievement for individual students and order. Until educators have techniques for effectively dealing with the educational needs of a diverse student body in an integrated setting, desegregation will not be seen as a viable educational strategy. Resegregation is a manifestation of the failure of desegregation as a philosophy that educators and parents believe in as a strategy that benefits children.

References

Abramson, M. Implications of mainstreaming: A challenge for special education. In L. Mann & D. Sabatino (Eds.), The fourth review of special education. New York: Grune & Stratton, 1980.

Advisory Commission on Intergovernmental Relations. Intergovernmentalizing the classroom: Federal involvement in elementary and secondary education. In The federal role in the federal system: The dynamics of growth (Vol. 5). Washington, D.C.: U.S. Government Printing Office, March 1981.

Alexander, D., & Nana, A. The how, what, where, when, and why of bilingual education: A concise and objective guide for school district planning. San Francisco: R & E Research Association, 1977.

American Institute for Research. Evaluation of the impact of ESEA Title VII Spanish/English bilingual education programs (4 vols.). Palo Alto, Calif.: American Institute for Research, 1977-1978.

Anastasi, A. Psychological testing (4th ed.). New York: MacMillan, 1976.

Arnez, N. L. Desegregation of public schools: A discriminatory process. Journal of Afro-American Issues, 1976, 4, 274-282.

Arnez, N. L. Implementation of desegregation as a discriminatory process. Journal of Negro Education, 1978, 47, 28-45.

Arnove, R., & Strout, T. Alternative schools and cultural pluralism: Promise and reality. Educational Research Quarterly, 1978, 2(4), 74-95.

Aspira of America, Inc. Trends in segregation of Hispanic students in major school districts having large Hispanic enrollment: Analytic report (Vol. 3A). Washington, D.C.: National Institute of Education, 1979. (a)

Aspira of America, Inc. Trends in segregation of Hispanic students in major school districts having large Hispanic enrollment: Ethnographic case studies (Vol. 2). Washington, D.C.: National Institute of Education, 1979. (b)

Aspira of America, Inc. Trends in segregation of Hispanic students in major school districts having large Hispanic enrollment: Desegregation and the Hispano in America (Vol. 1). Washington, D.C.: National Institute of Education, 1980.

Baez, T., Fernandez, R. R., & Guskin, J. T. Desegregation and Hispanic students: A community perspective. Rosalyn, Va.: InterAmerican Research Association, Inc., 1980.

Bailey, S. K., & Mosher, E. K. ESEA: The Office of Education administers a law. Syracuse, N.Y.: Syracuse University Press, 1968.

Bell strikes down bilingual regulations. National Journal, February 7, 1981, pp. 241-242.

Bennett, C. A *study of the causes of disproportionality in suspensions and expulsions of male and black students. Part Two: Characteristics of high and low disproportionality schools*. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Bennett, C., & Harris, J. J., III. *A study of the causes of disproportionality on suspensions and expulsions of male and black students. Part One: Characteristics of disruptive and non-disruptive students*. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Berke, J. S., & Demarest, E. J. Alternatives for future federal programs. In M. F. Williams (Ed.), *Government in the classroom*. New York: Academy of Political Science, 1978.

Bickel, F., & Qualls, R. *Project Student Concerns: A study of minority student suspensions* (Interim Report). Louisville, Ky.: Jefferson County Educational Consortium, September 1979. (ERIC Document Reproduction Service No. ED 178 636)

Block, E. E., Covill-Servo, J., & Rosen, M. F. *Failing students, failing school*. New York: New York Civil Liberties Union, 1978.

Breglio, V. J., Hinkley, R. H., & Beal, R. S. *Students' economic and educational status and selection for compensatory education* (Technical Report No. 2 from the Study of Sustaining Effects of Compensatory Education on Basic Skills). Santa Monica, Calif.: System Development Corporation, 1978.

Brischetto, R., & Arciniega, T. Examining the examinees: A look at educator's perspectives on the Chicano student. In R. O. De la Garza, Z. A. Kruszewski, & T. A. Arciniega (Eds.), *Chicanos and native Americans: The territorial minorities*. Englewood Cliffs, N.J.: Prentice Halls, 1973.

Brisk, M. E. *Bilingual education and school desegregation: The case of Boston*. Paper presented at the meeting of the International Conference for Bilingual-Bicultural Education, Chicago, May 1975. (ERIC Document Reproduction Service No. ED 126 999)

Brisk, M. E. Bilingual education legislation: The Boston desegregation case. In H. LaFontaine, B. Persky & L. Golubchick (Eds.), *Bilingual education*. Wayne, N.J.: Avery Publishing Company, 1978.

Brookover, W., Brady, N. M., & Warfield, M. Educational policies and equitable education: A report of studies of two desegregated school systems. In *Procedures and pilot research to develop an agenda for desegregation studies*. East Lansing, Mich.: Michigan State University, College of Urban Development, Center for Urban Affairs, March 1981.

Cardenas, J. Desegregation and the Mexican American. In *Desegregation and education concerns of the Hispanic community* (Conference Report). Washington, D.C.: National Institute of Education, June 1977.

Carter, D. G. *Student discrimination, disproportionality and the law*. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Carter, T. P. Mexican Americans in school: A history of educational neglect. New York: College Entrance Examination Board, 1970. (a)

Carter, T. P. Preparing teachers for Mexican-American children. In H. Johnson, & W. Hernandez (Eds.), Educating the Mexican American. Valley Forge, Pa.: Judson Press, 1970. (b)

Carter, T. P. Interface between bilingual education and desegregation: A study of Arizona and California. Washington, D.C.: National Institute of Education, 1979.

Carter, T. P., & Segura, R. D. Mexican Americans in school: A decade of change. New York: College Entrance Examination Board, 1979.

Center for National Policy Review. The rights of school children. Unpublished manuscript, Catholic University of America, Center for National Policy Review, July 1980.

Chesler, M. A. Implementing good ideas for school desegregation; Problems in potentials. Paper presented to the National School Desegregation Research Panel, Key West, Florida, October 1979.

Children's Defense Fund. Children out of school in America. Washington, D.C.: Children's Defense Funds, Washington Research Projects, 1974.

Children's Defense Fund. School suspensions: Are they helping children? Washington, D.C.: Children's Defense Fund, September 1975.

Cleary, T. A., Humphreys, L. G., Kendrick, S., & Wesman, A. Educational uses of tests with disadvantaged students. American Psychologists, 1975, 30, 15-41.

Cohen, E. The effects of desegregation on race relations. Law and Contemporary Problems, 1975, 39(2), 271-299.

Cohen, R. A. Conceptual styles, culture conflict, and nonverbal tests of intelligence. American Anthropologist, 1969, 71, 828-856.

Collins, T. W. From courtrooms to classrooms: Managing school desegregation in a deep south high school. In R. C. Rist (Ed.), Desegregated schools. New York: Academic Press, 1979.

Columbus Public Schools. Report to the Federal District Court on the status of desegregation, Penick et al. v. Columbus Board of Education et al., November 16, 1979.

Columbus Public Schools. Report on the status of desegregation to the Federal District Court, Penick et al. v. Columbus Board of Education et al., November 20, 1980.

Columbus Public Schools. Report on the status of desegregation to the Federal District Court, Penick et al. v. Columbus Board of Education et al., March 25, 1981.

Cook, V. J. Influences of home and family in the development of literacy in children. School Psychology Review, 1980, 9, 369-373.

Corman, L., & Gottlieb, J. Mainstreaming mentally retarded children: A review of research. In N. R. Ellis (Ed.), International review of research in mental retardation (Vol. 9). New York: Academic Press, 1978.

Cotter, D. E., & Berk, R. A. Item bias in the WISC-R using black, white, and Hispanic learning disabled children. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Coulson, J. E., Hanes, S. D., Ozene, D. G., Bradford, C., Doherty, W. J., Duck, G. A., & Hemenway, J. A. The third year of Emergency School Aid Act (ESAA) implementation. Santa Monica, Calif.: System Development Corporation, March 1977.

Department of Education. Nondiscrimination under programs receiving financial assistance through the Education Department (Proposed rules). Federal Register, Tuesday, August 5, 1980, 45(152), 52051-52076.

Dunn, L. Special education for the mildly retarded--Is much of it justifiable? Exceptional Children, 1968, 35, 5-22.

Edmonds, R. A. A discussion of the literature and issues related to effective schooling. St. Louis, Mo.: Central Midwestern Regional Educational Laboratory, 1979.

Educational Advocates Coalition. Report on federal compliance activities to implement the Education for All Handicapped Children Act (P.L. 94-142). Washington, D.C.: Children's Defense Fund, April 1980.

Elementary reading skills improve. National Assessment of Educational Progress Newsletter, 1981, 14(1), 1-3.

Epstein, J. After the bus arrives: Resegregation in desegregated schools. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Epstein, N. Language, ethnicity, and the schools: Policy alternatives for bilingual-bicultural education. Washington, D.C.: George Washington University, Institute for Educational Leadership, 1977.

Esposito, D. Homogeneous and heterogeneous ability grouping: Principal findings and implications for evaluating and designing more effective educational environments. New York: Columbia University, Teacher's College, July 1971. (ERIC Document Reproduction Service No. Ed 056 150)

Evertson, C. M., Sanford, J. P., & Emmer, E. T. Effects of class heterogeneity in junior high school. American Educational Research Journal, 1981, 18, 219-232.

Felice, L. G., & Richardson, R. L. The effects of desegregation on minority student dropout rates. Integrated Education, 1977, 15(6), 47-50.

Fernandez, R. R., & Guskin, J. T. Bilingual education and desegregation: A new dimension in legal and educational decision-making. In H. Lafontaine, B. Persky & L. H. Golubchick (Eds.), *Bilingual education*. Wayne, N.J.: Avery Publishing Group Inc., 1978.

Fernandez, R. R., & Guskin, J. T. Hispanic students and school desegregation. In W. D. Hawley (Ed.), *Effective school desegregation*. Beverly Hills, Calif.: SAGE Publications, 1981.

Findley, W. G., & Bryan, M. M. *Ability grouping, 1970: Status, impact, and alternatives*. Athens, Ga.: University of Georgia, Center for Educational Improvement, 1971.

Findley, W. G., & Bryan, M. M. *The pros and cons of ability grouping* (Fastback No. 66). Bloomington, Ind.: Phi Delta Kappan Educational Foundation, 1975.

First, J., & Mizell, M. H. (Eds.). *Everybody's business: A book about school discipline*. Columbia, S.C.: Southeastern Public Education Program, 1980.

Flaugher, R. L. The many definitions of test bias. *American Psychologist*, 1978, *33*, 671-679.

Forehand, G. A., Ragosta, M., & Rock, D. A. *Conditions and processes of effective school desegregation*. Princeton, N.J.: Educational Testing Service, July 1976. (ERIC Document Reproduction Service No. ED 131 155)

Foster, G. *Discipline practices in the Hillsborough County public schools*. Unpublished manuscript, University of Miami at Coral Gables, Florida School Desegregation Consulting Center, April 1977.

Froman, R. D. *Ability grouping: Why do we persist and should we?* Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Gallagher, J. The special education contract for mildly handicapped children. *Exceptional Children*, 1972, *38*, 527-535.

Galusha, R. Director of Psychological Services, Omaha Public Schools. Personal communication, May 5-9, 1980.

Garibaldi, A. In-school alternatives to suspension: The state of the art. In *In-school alternatives to suspension* (Conference report). Washington, D.C.: National Institute of Education, April 1979.

Gerard, H. B., & Miller, N. (Eds.). *School desegregation: A long-range study*. New York: Plenum Press, 1976.

Glass, G. V., & Smith, M. L. *"Pull-out" in compensatory education*. Boulder, Colo.: University of Colorado, Laboratory of Educational Research, 1977.

Goettel, R. J. Federal assistance to national target groups: The Title I experience. In M. Timpane (Ed.), *The federal interest in financial schooling*. Cambridge, Mass.: Ballinger, 1978.

Goldberg, M. L., Passow, A. H., & Justman, J. *The effects of ability grouping*. New York: Columbia University, Teacher's College, 1966.

Gottlieb, D. G. Teaching and students: The views of Negro and white teachers. Sociology of Education, 1964, 37, 345-353.

Grantham, G. Student discipline issues before and after court-ordered desegregation in New Castle County, Delaware. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Green, R. L., & Cohen, W. J. An evaluation of the results of the school desegregation order in Michelle Oliver, et al. Plaintiffs v. Kalamazoo Board of Education, et al. Defendants. Report to the Honorable Noel P. Fox, Chief Judge of the United States District Court, Western District of Michigan, Southern Division, (368 F. Supp. 143 W. D. Mich. S. D. 1973), 1979.

Green, R. L., & Griffore, R. School desegregation, testing, and the urgent need for equity in education. Education, 1978, 99(1), 16-19.

Hall, L. Race and suspension: A second generation desegregation problem. In C. D. Moody, J. Williams & C. B. Vergon (Eds.), Student rights and discipline. Ann Arbor, Mich.: University of Michigan, School of Education, 1978.

Haller, E. J. Decisions at the margins: Toward an explanation of the relation between ability group placement and pupil SES. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, April 1981.

Haller, E. J., & Davis, S. Does socioeconomic status bias the assignment of elementary school students to reading groups? American Educational Research Journal, 1980, 17, 409-418.

Hamblin, R., Hathaway, L. C., & Wodarski, J. S. Group contingencies, peer tutoring, and accelerating academic achievement. In E. Ramp & W. Hopkins (Eds.), A new direction for education: Behavior analysis. Lawrence, Kan.: University of Kansas, Department of Human Development, 1971.

Hargrove, E., Graham, S., Ward, L., Abernethy, V., Cunningham, J., & Vaughn, W. Regulations and schools: The implementation of the Education for All Handicapped Education Act. Nashville, Tenn.: Vanderbilt University, Institute for Public Policy Studies, 1981.

Harnischfeger, A., & Wiley, D. E. A merit assessment of vocational education programs in secondary schools. A statement to the Subcommittee on Elementary, Secondary, and Vocational Education, September 1980.

Haro, C. M. Mexicano/Chicano concerns and school desegregation in Los Angeles. Los Angeles: University of California, Chicano Studies Center, 1977.

Hartlage, L. C., & Steele, C. T. WISC and WISC-R correlates of academic achievement. Psychology in the Schools, 1977, 14, 15-18.

Hawkridge, D. G., Chalupsky, A. B., & Roberts, A. O. H. A study of selected exemplary programs for the education of disadvantaged children. Palo Alto, Calif.: American Institutes for Research, September 1968.

Hawley, W. D., & Barry, J. *Toward a theoretical understanding of the problems of evaluating and implementing the Emergency School Assistance Act*. Unpublished manuscript, Vanderbilt University, Institute for Public Policy Studies, November 1980.

Henderson, N. B., Goffeney, B. A., Butler, B. V., & Clarkson, Q. D. Differential rates of school promotion from first grade for white and Negro, male and female 7-year olds. *Psychology in the Schools*, 1971, *8*, 101-109.

Hill, P. *Do federal education programs interfere with one another?* Santa Monica, Calif.: Rand Corporation, September 1979.

Hinkley, R. H., Beal, R. S., & Breglio, V. J. *Student economic and educational status and receipt of educational services* (Technical Report No. 3 from the Study of the Sustaining Effects of Compensatory Education on Basic Skills). Santa Ana, Calif.: Decima Research, 1978.

Hollingsworth, E. J. Exploring remedies from within. *Education and Urban Society*, 1979, *2*, 511-526.

Hunter, J., & Schmidt, F. Critical analysis of the statistical and ethnical implications of various definitions of test bias. *Psychological Bulletin*, 1976, *83*, 1053-1071.

Jensen, A. *Educational differences*. London: Methuen & Company, 1973.

Jensen, A. Test bias and construct validity. *Phi Delta Kappan*, 1976, *58*, 340-356.

Johnson, D. W., & Johnson, R. T. Instructional goal structures: Cooperative or individualistic. *Review of Educational Research*, 1974, *44*, 213-240.

Joseph, A. *Intelligence, IQ and race--when, how and why they became associated*. San Francisco: R & E Research Associates, 1977.

Kaeser, S. *Orderly schools that serve all children: A review of successful schools in Ohio*. Cleveland, Oh.: Citizens' Council for Ohio Schools, 1979. (ERIC Document Reproduction Service No. ED 181 150) (a)

Kaeser, S. C. Suspensions in school discipline. *Education and Urban Society*, 1979, *11*, 465-486. (b)

Killalea Associates, Inc. *1978 elementary and secondary schools civil rights survey: Analysis of selected civil rights issues* (Vol. 1: Reports on ranked districts for the nation). Arlington, Va.: Killalea Associates, Inc., July 1978.

Kimbrough, J., & Hill, P. *The aggregated effects of federal education programs*. Santa Monica, Calif.: Rand Corporation, 1981.

Larkin, J. School desegregation and student suspension: A look at one school system. *Education and Urban Society*, 1979, *11*, 485-495.

Larkins, G. A., & Oldham, S. E. Patterns of racial separation in a desegregated high school. *Theory and Research in Social Education*, 1976, *4*(2), 23-28.

Lawrence, S. Ability grouping in the classroom. Unpublished qualifying paper, Harvard Graduate School of Education, 1969.

Levin, B. School desegregation remedies and the role of social science research. Law and Contemporary Problems, 1978, 42(4), 1-36.

Long, B. H., & Henderson, E. H. The effect of pupils' race, class, test scores, and classroom behavior on the academic expectations of southern and non-southern white teachers. Paper presented at the annual meeting of the American Educational Research Association, Chicago, April 1972. (ERIC Document Reproduction Service No. ED 063 422)

Lopez, M. Bilingual education and the Latino student. In L. Valverde (Ed.), Bilingual education for Latinos. Washington, D.C.: Association for Supervision and Curriculum Development, 1978.

Lucker, G. W., Rosenfield, D., Sikes, J., & Aronson, E. Performance in the interdependent classroom: A field study. American Educational Research Association, 1976, 13, 123.

Lunn, J. C. Streaming in the primary school. London: National Foundation for Educational Research in England and Wales, 1970.

Lynch, E., Simms, B. H., Heppel, C., & Schuct, J. Mainstreaming pre-schoolers: Children with mental retardation (Report to the Department of Health, Education and Welfare). Washington, D.C.: U.S. Government Printing Office, 1978.

Marascuilo, L. A., & McSweeny, M. Tracking and minority student attitudes and performance. Urban Education, 1972, 6, 303-319.

McLaughlin, M. W. Evaluation and reform: The Elementary and Secondary Education Act of 1965, Title I. Cambridge, Mass.: Ballinger, 1975.

McNemar, Q. On so-called test bias. American Psychologist, 1975, 30, 848-851.

Mercer, J. R. In defense of racially and culturally non-discriminatory assessment. School Psychology Digest, 1979, 8, 89-115.

Merino, B. J., Politzer, R., & Ramirez, A. The relationship of teachers' Spanish proficiency to pupils' achievement. NABE Journal, 1979, 3(2), 21-37.

Mills, R., & Bryan, M. M. Testing . . . grouping: The new segregation in southern schools? Atlanta: Southern Regional Council, 1976. (ERIC Document Reproduction Service No. ED 131 124)

Mizell, M. H. Improving school disciplinary practices: Community strategies. Education and Urban Society, 1979, 11, 547-556.

Morgan, P. R., & McPartland, J. M. The extent of classroom segregation within desegregated schools. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Narot, R. E. Teacher prejudice and teacher behavior in desegregated schools. In Southern schools: An evaluation of the Emergency School Assistance Program and of desegregation. Chicago: National Opinion Research Center, 1973.

National Center for Education Statistics. The condition of education: Statistical report. Washington, D.C.: U.S. Government Printing Office, 1981.

National Education Association. Ability grouping: Research summary. Washington, D.C.: National Education Association, 1968.

National Institute of Education. Evaluating compensatory education: An interim report on the National Institute of Education compensatory education study. Washington, D.C.: National Institute of Education, 1976. (ERIC Document Reproduction Service No. ED 132 238)

National Institute of Education. Implications of "follow-the-child" proposals. Washington, D.C.: National Institute of Education, November 1977.

National Institute of Education. Compensatory education study: A final report. Washington, D.C.: National Institute of Education, 1978.

National Public Radio. Pushouts: New outcasts from public school. Transcript of Options in Education (September 9, 1974, GWU-IEL/NPR). (ERIC Document Reproduction Service No. ED 096 373)

Noblit, G. W. Patience and prudence in a southern high school: Managing the political economy of desegregated education. In R. C. Rist (Ed.), Desegregated schools: Appraisals of an American experiment. New York: Academic Press, 1979.

Oakes, J. Tracking and inequality within schools: Findings from a study of schooling. Paper presented at the annual meeting of the American Educational Research Association, Boston, April 1980.

Orfield, G. Response II. In N. Epstein (Ed.), Language, ethnicity, and the schools: Policy alternatives for bilingual-bicultural education. Washington, D.C.: George Washington University, Institute for Educational Leadership, 1977.

Pattinger, J. S. Memorandum to school district with more than five percent national origin minority group children. Washington, D.C.: U.S. Office of Civil Rights, May 1970.

Paulston, C. B., Belkin, J., Graham, J. R., & Williams, E. Research. In Bilingual education: Current perspectives (Volume 2: Linguistics). Arlington, Va.: Center for Applied Linguistics, 1977.

Peretti, P. O. Effects of teachers' attitudes on discipline problems in schools recently desegregated. Education, 1976, 97, 136-140.

Poynor, H. Instructional dimensions study, 1976-1977. Washington, D.C.: Kirschner & Associates, 1977.

Project Student Concerns (Interim Report). Louisville, Ky.: Jefferson County Education Consortium, 1977. (ERIC Document Reproduction Service No. ED 145 066)

Radin, B. A. Equal educational opportunity and federalism. In M. F. Williams (Ed.), *Government in the classroom*. New York: Academy of Political Science, 1978.

Rajpal, P. L. Teacher judgements of minority children. *Integrated Education*, 1972, *10*(6), 33-36.

Ramirez, M., III. Cognitive styles and cultural democracy in education. *Social Quarterly*, 1973, *53*, 895-904.

Ramirez, M., III, & Castaneda, A. *Cultural democracy: Bicognitive development and education*. New York: Academic Press, 1974.

Raskin, L. M., Bloom, A. S., Klee, S. H., & Reese, A. The assessment of developmentally disabled children with the WISC-R, Binet and other tests. *Journal of Clinical Psychology*, 1978, *34*, 111-114.

Reschley, D. J. Nonbiased assessment. In G. D. Phye & D. J. Reschley (Eds.), *School psychology: Perspectives and issues*. New York: Academic Press, 1979.

Rist, R. C. Student social class and teacher expectations: The self-fulfilling prophecy in ghetto education. *Harvard Educational Review*, 1970, *40*, 411-451.

Rist, R. *The invisible children: School integration in American society*. Cambridge, Mass.: Harvard University Press, 1978.

Rist, R. C. *Desegregated schools: Appraisals of an American experiment*. New York: Academic Press, 1979.

Rossi, R. J., McLaughlin, D. H., Campbell, E. A., & Everett, B. E. *Summaries of major Title I evaluations, 1966-1976*. Palo Alto, Calif.: American Institutes for Research, July 1977.

St. John, N. *School desegregation: Outcomes for children*. New York: Wiley & Sons, 1975.

Samuda, R. J. *Psychological testing of American minorities: Issues and consequences*. New York: Dodd, Mead & Company, 1975.

Sarason, S. B. *The culture of the school and the problem of change*. Boston, Mass.: Allyn & Bacon, 1971.

Semmel, M. I., Gottlieb, J., & Robinson, N. M. Mainstreaming: Perspectives on educating handicapped children in the public school. In D. C. Berliner (Ed.), *Review of research in education* (Vol. 3). Washington, D.C.: American Educational Research Association, 1979.

Shuey, A. M. *The testing of Negro intelligence* (2nd ed.). New York: Social Science Press, 1966.

Slavin, R. E. *Effects of biracial learning teams on cross-racial friendship and interaction* (Report No. 240). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, 1977. (a)

Slavin, R. E. How student learning teams can integrate the desegregated classroom. Integrated Education, 1977, 15(6), 56-58. (b)

Slavin, R. E. Student learning teams and scores adjusted for past achievement: A summary of field experiments (Report No. 227). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, 1977. (c)

Slavin, R. E. Student team learning techniques: Narrowing the achievement gap between the races (Technical Report 228). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, May 1977. (d)

Slavin, R. E. Student teams and achievement divisions: Effects on academic performance, mutual attraction, and attitudes (Report No. 233). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, 1977. (e)

Slavin, R. E. Using student learning teams to desegregate the classroom. Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, July 1977. (f)

Slavin, R. E. Multicultural student team instructional programs and race relations in desegregated schools. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978. (a)

Slavin, R. E. Student teams and achievement divisions. Journal of Research and Development in Education, 1978, 12, 39-49. (b)

Slavin, R. E. Effects of biracial learning teams on cross-racial friendships. Journal of Educational Psychology, 1979, 71, 381-387. (a)

Slavin, R. E. Effects of individual learning expectations on student achievement (Report No. 288). Baltimore, Md.: Johns Hopkins University, Center for the Social Organization of Schools, November 1979. (b)

Slavin, R. E. Integrating the desegregated classroom: Actions speak louder than words. Educational Leadership, 1979, 36, 322-324. (c)

Slavin, R. E. Student teams and achievement divisions. Journal of Research and Development in Education, 1979, 12, 39-49. (d)

Slavin, R. E. Cooperative learning. Review of Educational Research, 1980, 50(2), 315-342. (a)

Slavin, R. E. Cooperative learning in teams: State of the art. Educational Psychologist, 1980, 15, 93-111. (b)

Smith, S. M. An assessment of Emergency School Aid Act (ESAA) programs operations: Policy recommendations (Vol. 3). Washington, D.C.: U.S. Office of Education, Applied Urbanetics, September 1978.

Southern Regional Council. A conflict of cultures. Southern Exposure, 1979, 7(2), 126-128.

Southern Regional Council and the Robert F. Kennedy Memorial. The student pushout: Victim of continued resistance to desegregation. Atlanta, Ga.: Southern Regional Council, 1973.

Stanfield, R. L. Are federal bilingual rules a foot in the schoolhouse door? National Journal, October 18, 1980, pp. 1736-1740.

Stearns, M. S., Green, D., & David, J. L. Local implementation of P.L. 94-142: First year report of a longitudinal study. Menlo Park, Calif.: SRI International, Education Research Center, April 1980.

Talley, R. C. Evaluating the effects of implementing the system of multicultural pluralistic assessment: A qualitative perspective. School Psychology Digest, 1979, 8, 71-80.

Thernstrom, A. M. E pluribus plura - Congress and bilingual education. Public Interest, 1980, 60, 3-22.

Thiemann, F. C., & Deflaminis, J. A. Necessity's sharp pinch: Title I under conditions of merger and desegregation. Paper presented at the annual meeting of the American Educational Research Association, Toronto, March 1978.

Thorndike, R. L., & Hagen, E. Measurement and evaluation in psychology and education (4th ed.). New York: Wiley & Sons, 1977.

Tompkins, R. Preparing communities for school desegregation. Theory Into Practice, 1978, 2, 107-114.

Trent, W. T. Expert opinion on school desegregation: Findings from the interviews. In W. D. Hawley (Ed.), Assessment of current knowledge about the effectiveness of school desegregation strategies (Vol. 6). Nashville, Tenn.: Vanderbilt University, Institute for Public Policy Studies, Center for Education and Human Development Policy, 1981.

Troike, R. Research evidence for the effectiveness of bilingual education. NABE Journal, 1978, 3(1), 13-24.

Tuckman, B. W., & Bierman, M. Beyond Pygmalion: Galatea in the schools. Paper presented at the annual meeting of the American Educational Research Association, New York, February 1971.

U.S. Bureau of the Census. Current population reports, school enrollment-social and economic characteristics of students, October 1975, Series P-20, No. 294. Washington, D.C.: U.S. Government Printing Office, 1976.

U.S. Commission on Civil Rights. Five communities: Their search for equal education. Washington, D.C.: U.S. Government Printing office, 1972.

U.S. Commission on Civil Rights. Toward quality education for Mexican Americans (Report 6: Mexican American Education Study). Washington, D.C.: U.S. Government Printing Office, 1974.

U.S. Office of Education. Working together: Case studies of Title I ESEA programs in four desegregated school districts. Washington, D.C.: U.S. Government Printing Office, 1974.

Van Fleet, A. A. *Children out of school in Ohio*. Cleveland, Oh.: Citizen's Council for Ohio Schools, 1977.

Waggoner, D. Teacher resources in bilingual education: A national survey. *NABE Journal*, 1979, *3*(2), 53-60.

Walsh, M. A. *The development of a rationale for a program to prepare teachers for Spanish-speaking children in the bilingual-bicultural elementary school*. San Francisco: R & E Research Association, 1976.

Watkins, S. Staff Psychologist and Coordinator for Emergency Aid Assistance Grant, Omaha Public Schools. Personal communication, May 7, 1980.

Wayson, W. W., & Pinnell, G. S. (Eds.). *Citizen guide to quality education*. Cleveland, Oh.: Citizen's Council for Ohio Schools, 1978.

Weatherly, R. L. *Reforming special education: Policy implementation from state level to street level*. Cambridge, Mass.: Massachusetts Institute of Technology Press, 1979.

Weigel, R. H., Wiser, P. L., & Cook, S. W. The impact of cooperative learning experiences on cross-ethnic relations and attitudes. *Journal of Social Issues*, 1975, *31*(1), 219-245.

Weinberg, M. *Minority students: A research appraisal* (Department of Health, Education, and Welfare, National Institute of Education). Washington, D.C.: U.S. Government Printing Office, March 1977.

Weintraub, F. J., & Abeson, A. New education policies for the handicapped: The quiet revolution. In F. J. Weintraub, A. Abeson, J. Ballard, & M. L. LaVor (Eds.), *Public policy and the education of exceptional children*. Reston, Va.: Council for Exceptional Children, 1976.

Wellisch, J. B. *Characteristics and contexts of ESAA basic human relations programs*. Santa Monica, Calif.: System Development Corporation, 1979.

Wulfsberg, R. M. Testimony before the Subcommittee on Elementary, Secondary and Vocational Education of the Committee on Education and Labor of the House of Representatives (September 1980).

Wynn, C. Black and white Bibb county classrooms. *Integrated Education*, 1971, *8*(4), 10-16.